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ORIGINAL COMMUNICATIONS.

Lectures on Scarlet Fever. By Caspar Morris, M. D., late Lecturer on Practical Medicine in the Philadelphia Medical Institute.

Lecture III.

As yet every step taken in the process of investigation into the nature and habits of the cause of this disease, leads further from certainty as to its character and the laws by which it is governed. Though prevailing most frequently during the changeable weather either in the spring or autumn, and extending itself through the winter, in this respect manifesting its affinity to other febrile eruptive diseases with which it is sometimes associated, measles, erysipelas, and varicella, it is much more common to meet with isolated cases of it than of them which can not be traced to any infection, and which fail to propagate the disease in others who are brought most closely in connexion with it.

I have seen quite recently, during the intense heat of July, one well marked and fatal case, in a large family of children, without spreading to any other members, though no attempts at

isolation were made. Similar cases are familiar to every physician. The access to the chamber was as free, and the visits of the other children were as frequent, as the warmest affection could dictate. The subject was the youngest child, and an only daughter, and therefore the least exposed to external influences; it were vain to attempt any solution of the question from whence the miasm was derived which gave rise to this case. Such are of frequent occurrence, and if received without any investigation of the circumstances which modify them, and without any regard to others of an opposite tendency, would shake the faith of the most devoted believer in the contagious character of the disease. There is, however, some peculiar want of susceptibility to the impression of morbid poisons in this family, as they had escaped with equal impunity, a few months previously, when varioloid was brought into the house by a relative, taken into it, without the adoption of any precautionary measures, from a boarding house where he had sickened with that disease.

Some eminent teachers of medical science are disposed to solve the difficulty growing out of the frequent observation of such cases, in a very summary manner. Whilst they admit them to be characterized by all the symptoms of scarlet fever, so that we cannot in any way distinguish them from that disease, they think the mere absence of the power of propagation, and the inability to trace them to any connexion with a previous case or epidemic influence, sufficient reason to consider them an entirely distinct disease. Such is the opinion of Professor Mitchell, and such appears to be that of Dr. Chapman, who, in his lectures on exanthematous fevers, says, "Moreover I have repeatedly met with in the winter, and uniformly, I think, when snow is on the ground, an affection bearing a still closer resemblance to scarlatina. Children acquire it, mostly, or perhaps exclusively, by becoming heated from playing in the snow, and then suddenly chilled. The collapse is often very considerable, followed by febrile reaction, much cerebral disturbance, delirium, stupor, and sometimes convulsions, sore throat, nausea and vomitings, and by an eruption so scarlatinous in its aspect, that it may readily be mistaken for that disease. Nor is it scarcely less fatal. Death, I have known to take place from it in a few hours, from an inability to arouse the system out of its torpor, or by convul-

sions." You are well aware of the high estimate I place on the quickness of perception, clear judgment, and perfect accuracy of of Professor Chapman, and long observation has given me entire confidence in the correctness of his diagnosis; yet even the weight of his authority cannot lead me to doubt the dependence of the cases he thus describes upon the miasm which produces scarlet fever. While we know, on the one hand, that the causes of other diseases may lie long dormant in the system, only waiting for exciting circumstances to develope their activity, and, on the other, that even the most contagious diseases occur occasionally as sporadic cases, it appears to be more in accordance with analogy to consider such cases as scarlet fever, failing to diffuse itself, from some unknown cause, than to erect a new form of disease distinguished from scarlet fever by no symptom, but this one negative characteristic.

In the month of December, 1832, the disease appeared among the inmates of the House of Refuge for juvenile offenders. It was prevailing in the city at that period, as will be proven by reference to the table furnished by Dr. Emerson which exhibits the mortality of that year as the highest in the ten years from 1830 to 1840. The discipline of this institution is such as secludes the children almost entirely from communication with persons beyond its walls. This might be supposed to afford an unusually valuable field for observation on its introduction and mode of diffusion. The difficulty we encounter, however, in determining the manner in which it was introduced into the institution, is one which exhibits the obscurity in which the question is enveloped. I was at the time the attending Physician, and made a daily record of every case of sickness requiring my care, in a book kept in the institution for that purpose. A few cases of sore throat had been noted; one of erysipelas, and several of varicella, all on the boys' side of the institution, within the fortnight which preceded the breaking out of scarlet fever.

The first well marked case, however, occurred in the person of a visitor to the family of the matron, thus throwing a strong shade of uncertainty on the question of origin. The second was that of a sister of the first; and the first cases among the permament inmates occurred at the time of the convalescence

of the first patients, in the matron's family. Had no cases of sore throat among the children preceded the first well developed case, the presumption that the disease had been introduced by her from without, would have been strong, especially as the apartments occupied by the matron's family, were in that part of the premises appropriated to the females, and it was among the females the disease first diffused itself. The buildings are extensive, surround a very large enclosure, and are so arranged as to effect a separation of the sexes at *all times*. The disease spread rapidly among the girls, five cases occurring simultaneously on the 25th of December; and one boy on the 29th of the same month; two other boys were taken on the 11th of January 1833. On the 19th a case of varicella was presented among the boys, followed by several others within the following week. Scarlet fever and sore throat without eruption, continued to prevail among both boys and girls till the end of March, amounting in all to sixty cases, without one fatal termination. If no case of sore throat with fever among the children had preceded the sickness of the visitor, this history would have been very decidedly favorable to the idea of the dependence of the disease on contagion; and this would have been strengthened by the manner in which it spread to her immediate attendants, and the inmates of the apartment in direct communication with her sick room. The interval also between the first case and those which followed, was such as is most conformable to the idea of its contagious character; and this is confirmed by the number then seized simultaneously. But any positive decision as to the mode of introduction, is forbidden by the previous prevalence of sore throat, with fever, among the children. MM. Rilliet and Barthez, in recording their observation of the disease, in the wards of the Hospitals for sick children in Paris, appear, on the contrary, to be able to trace every period of its prevalence in that institution, that came under their notice, to the introduction of a patient suffering with it, from whom it spread to the children who had been brought in with other diseases.

Among the circumstances which favor the idea of some influence which is propagated in the person of the sick, and thus diffused from one individual to another, no slight degree of importance is due to the fact that it is said to be unknown in those distant colonies settled by Europeans, the voyage to which is so long

that the influence of the specific poison is exhausted before the arrival of the vessel in which it might be transported to their shores. Thus it is said to be unknown in the thickly peopled and civilized colonies of Australia and Van Dieman's Land; and Dr. Gregory asserts that there is no record of its prevalence in the Indian possessions of Great Britain. If direct contagion, or the transportation of some "materies morbi," eliminated in the progress of a case, be necessary to act as a ferment in diffusing the disease, and its epidemic prevalence has never an independent origin, places thus far removed from the old centres of civilization may forever remain exempt; unless we adopt the extreme view of Dr. Elliotson, as quoted by Dr. Chapman, who believes the infecting cause may be retained in the apartments where the disease has once existed, a much longer period than that occupied by these voyages. He asserts that "all the children admitted into a particular ward under his care, in one of the London Hospitals, were seized with scarlet fever for two years, in consequence of a patient with the disease having been in the ward at that remote period, and this, in despite of white-washings and other cleansings." The want of any regular medical reports from those countries, leaves a doubt as to the accuracy of the statement, that scarlet fever is unknown there. The point is one well worthy of investigation, and our own new settlements on the Pacific, will afford an excellent field for careful observation.

Reasoning upon the probabilities of the case, we should be disposed to the conclusion that it would be found to exist in all parts of the world. The constituents of the atmosphere, the physical arrangements of the material creation, the nature of man himself, his tendencies and susceptibilities, have ever been the same; it would be therefore but a natural presumption, that the diseases to which he is subject should undergo no greater modification than results from the varying habits which mark different stages of refinement or circumstances of wretchedness.

True it is, that diseases supposed to be new, have from time to time made their appearance, and diffused themselves in a manner as mysterious as scarlet fever. Black death, sweating sickness, cold plague, cholera, have each in successive ages, performed their ministry, by thinning out the teeming population of the

earth, and then disappeared from observation. But the imperfect records of these visitations, which have been transmitted to us leave room for the doubt whether they have not been mere modifications of the same disease, or the revival of plagues, the records of which have escaped from the grasp of history. The great diversity in character, presented by different epidemics of of scarlet fever, when taken in connexion with the known dependence of these several forms of the disease on one common cause, appears to favor such an assumption. Were it not so entirely established by testimony beyond contradiction, who could believe that forms of disease so apparently dissimilar as those assumed by scarlet fever in its different epidemic visitations, depend on a common cause? So frequently does this disease disappear from observation in a given district, (and occasionally, as we have seen, even from large cities,) so varying are the phases in which it presents itself, and so uncertain are the traces of the mode by which it has been introduced, that until further light is thrown upon it, we must be content to believe that it does at times commence anew from the operation of unknown influences.

Far from us be the worse than pagan infidelity, which would overlook the interference of Divine Providence, in the ordering of times of sickness or of health. If heathen moralists and heathen poets could recognize the interposition of the Gods, or seek to appease the rage of an incensed Apollo, it were surely shame for those who live in the light of Revelation, to rest on second causes only. It is, however, a duty incumbent on us as members of that profession to which the community entrusts the interests of health and life, to investigate narrowly, all second causes and collateral circumstances, which may furnish occasion for the origin, or facilitate the diffusion of this, as of every other of the many diseases, which are employed as "scourges of humanity." False indeed, were that faith, alike unsound in its foundation and disastrous in its application to man's necessities, which would teach us to lay aside our reason and cease to exert our powers for self protection. If variola may not be exterminated, nor cholera driven from the pale of civilization, vaccination mitigates the horrors of the one, and cleanliness and free ventilation, abate the intensity of the other. So if scarlet fever depend for its diffusion upon direct contagion alone, we may curtail its extent by proper pre-

cautions, which are, however, onerous and inhuman, if it have no such power of propagation. I would therefore, urge upon you, to begin from the very commencement of your professional career, a series of careful records of every fact which can throw light upon this question, not only with reference to the disease now under consideration, but all others of a kindred character. It is as much the duty of the physician to foresee the coming evil, and recommend precautionary measures, as to cope with disease in its individual manifestations in the chamber of sickness. The remarks of Dr. Rush on this subject are scarcely too strong, when in speaking of yellow fever, he says, "to all natural evil, the Author of nature has kindly prepared an antidote. Pestilential fevers furnish no exception to this remark. The means of preventing them, are as much under the power of human reason and industry, as the means of preventing the evils of lightning and common fire."

To trace down from remote ages, the mere record of the early history of the disease would be an unprofitable consumption of our time, too limited already for the investigation of matters of greater importance to you. It is not uninstructive, however, to know that this same uncertainty, as to its origin and mode of extension, has marked its character in every age; and hence, before the free diffusion of knowledge, through the agency of the press, put the members of the profession in possession of more extended information as to what was passing, or had occurred beyond the sphere of their own observation, it was *frequently* reported as a *new disease*. The earliest trace of its existence which has fallen under my own notice, dates in the first century of the Christian era, and is found in one of the tragedies of Seneca, where a chorus describes the devastation of Thebes by the plague, with which that city was visited on account of the involuntary incest of Œdipus, in the following terms:—

O dira novi facies leti!
Gravior leto! Piger ignavos
Alligat artus, languor, et ægro
Rubor in vultu, maculæque caput
Sparsere leves: tum vapor ipsam
Corporis arcem flammeus urit
Multoque genas sanguine tendit.

Oculique rigent, et sacer ignis
Pascitur artus. Resonant aures,
Stillatque niger naris aducæ
Cruor: et venas rumpit hiantes:

To those of you who have retained your familiarity with classic literature, it were an ungracious act to attempt to point out the admirable adaptation of this description, to the malignant form of the disease now under consideration. No poet or philosopher of the present day could furnish a more accurate delineation in the same number of words, unless himself familiarised with the disease by personal observation. Every lineament traced by the poet, is admirably correct. The adjuration of the *new* form of mortality more dreadful than death itself; commencing with languor of the limbs, while redness appears upon the face, and light spots are diffused over the head, from whence the influence extends to the trunk, while the parts about the jaws are distended with blood, and the eyes are distorted and a red flush is diffused over the limbs, the ears disturbed by ringing sounds, a black discharge flowing from the nostrils, and gaping ulcers are formed in the passages, all are highly characteristic. But that which Seneca then considered a new disease, has been called such many times in succeeding ages, disappearing for a period of longer or shorter duration, only to reappear in one of its several types. By the earlier medical authors, whose works have been handed down to us in imperfect fragments, all epidemic diseases were concluded under the general term of Loimos or Pestilence; the whole family of plagues was thus grouped together. Slowly, one after another was singled out for more accurate description, but it was not till the beginning of the 17th century, that scarlet fever was separately described, and then by the Spanish and Italian authors under the terms Garotilla and morbus strangulatorius, names in themselves sufficiently descriptive to designate the disease.

Even long since that period it was, by many, confounded with measles, to which fact we may ascribe the mortality of some nominal epidemics of that disease. The accounts given by these authors refer to epidemics which prevailed in the interval between 1610 and 1650, during which time it was marked by fearful mortality. How completely it had lost its formidable character

when Sydenham describes its appearance in London, in 1690 to 1695, may be inferred from his assurance that it is "a disease more in name than reality." Had Fothergill's reading been confined to Sydenham's account, he might well have regarded the epidemic, which came under his notice in the same metropolis in less than a century, as a new disease. Equally great have been the subsequent changes as recorded by the European writers, to whose works I must refer you for additional information on this point, and especially to the elaborate article by Dr. Tweedie in the Cyclopedia of Practical Medicine.

The earliest record I have been able to trace of its existence on this continent, reaches back to the year 1734—5 at which time it was prevalent in America and Europe simultaneously; and so great was the mortality caused by it in Boston, that we find the number of deaths in those years raised from 458, the number of the year 1733, to 528 in '34, and 617 in '35. At the same period the interments in the burial grounds of Christ Church and St. Peters in Philadelphia, rose from 96 to 144, and a like increase occurred in the same places from a similar cause in 1742. When we recall to mind the difficulty of communication between the Colonies at that early period, and the consequent infrequency of intercourse, and reflect on the small probability that those who were sick or so recently convalescent, as to carry about them a contagious influence, could endure the fatigue and exposure necessarily incident to the only modes of conveyance then known, we shall be disposed to adopt the solution afforded by the prevalence of a wide spread epidemic influence, as the means of propagation.

There is an exceedingly interesting paper by Cadwallader Colden, Esq., of New York, published by Dr. Fothergill in the 1st volume of the "Medical Observations and enquiries by a Society of Physicians in London," dated Coldenham, in New York, October, 1753, which throws unexpected and important light on the history of the disease on this continent. The whole document is one of great merit,and deserves to be borne in mind as a favorable specimen of our earlier medical literature. Mr. Colden remarks, "I have seen it only in my own family, and in a few neighbors in the country, to whom I sometimes give advice when they cannot obtain assist-

ance otherwise, having laid aside the practice of physic, upwards of twenty years. What I chiefly learned was from the late Dr. Douglass* of Boston, a gentleman of great skill in medicine, and an accurate observer, having corresponded with him while this distemper was frequent in the part of the country where I live."

"The first appearance of the throat distemper was at Kingston, an inland town of New England, about the year 1735; and as this town has no foreign trade, it may be concluded that the disease was not imported. It spread from thence and moved gradually westward, so that it did not reach Hudson's river till two years afterward. It continued some time on the east side of Hudson's river before it passed to the west, and appeared first in those places to which the people of New England resorted for trade, and in the places, through which they travelled. It continued to move westerly till, I believe, it has at last spread over all the British colonies on the continent."

"Though what I have mentioned seems evidently to show that the disease was propagated by infection, yet it did not spread in the same manner contagious distempers usually do; for children and young people only were subject to it, with a few exceptions of some few above twenty or thirty, and a very few old people who died of it,neither did it spread equally in all places that were equally exposed to the infection. The poorer sort of people were more liable to have this disease than those who lived well with all the conveniences of life. It has been more fatal in the country than in the great towns. People of a scorbutic habit were most subject to it, and they who fed on pork or lived in wet and low grounds. In some places only a few persons or families were seized, while in others all escaped. In some families it passed like a plague through all their children, in others only one or two were seized with it. Some were seized with it at such a distance from the infected, that it could not be conceived in what manner they could receive the disease by infection. Some families had the disease mildly, while others, in the same place and at the same time, had a most violent sort."

*In a letter of Dr. J. C. Warren reference is made to "a treatise of Dr. Douglass, of Boston, on this subject" of the date of 1736. I have not been able to meet with the work.

"Ever since it came into the part of the country where I live (now about 14 years) it frequently breaks out in different families and places, without any previous observable cause; but it does not spread as it did at first: sometimes a few only have it in a considerable neighborhood. It seems as if some seed or leaven, or secret cause, remained wherever it goes; for I hear of the like observation in other parts of the country.

"In different years, and different persons the symptoms are various. In some seasons it has been accompanied with miliary eruptions all over the skin; and at such times, the symptoms about the throat have been mild, and the disease generally without danger, if not ill treated."

Such is the earliest record I have seen, by an actual intelligent observer, of the disease on this continent; and it tallies accurately in all respects with more recent observation. As now, so then, it varied in the violence of its attack, in the absence or presence of eruption, and the degree of mortality; and then, as now the different forms prevailed simultaneously and separately, and there were periods of epidemic prevalence with occasional cases occuring sporadically. The same uncertainty marks its commencement and mode of propagation.

The next earliest notice of the disease on this continent by a medical author that has met my eye, is an exceedingly interesting manuscript tract on the subject, by Dr. John Kearsley of this city, now in the possession of Dr. George W. Norris. He says: "In the spring, summer and autumn of 1746," nearly ten years from the time of its first appearance at Kingston, "and indeed some part of the winter of the same year, this disease since called, by the learned Huxham, Fothergill and others, the angina maligna, or the putrid and ulcerous sore throat, prevailed in this and the neighboring provinces, and spread itself with mortal rage in opposition to the united endeavors of the faculty. Like to some new diseases, till their nature and constitution are known, it swept away all before it. It baffled every attempt to stop its progress, and seemed by its dire effects to be more like the drawn sword of vengeance to stop the growth of the colonies, than the real progress of a disease. In the New England Governments, as their annals no doubt will show, the stroke was felt with great severity. Villages were almost depopulated, and parents were

left to bewail the loss of their tender offspring, till Heaven, at last, whose almighty power we all must own, graciously checked its baneful influence. This disease as it then appeared, and since within these few years, had most of those symptoms to characterize it which those learned gentlemen, we have mentioned, have handed down to us. With us it generally affected children, or those under puberty, whose lax solids and spongy habits were more fitted to receive the floating miasmata of a putrid atmosphere, than those whose textures are more solid. It also affected those who lived in low, wet, marshy places, more than those who lived in higher situations. It happened with us, as it did with them in England, after much cold wet weather, succeeded by heat." At this period we find the burials in the grounds of Christ Church, rising to a number even greater than those in the year 1741, in which a pestilence, the nature of which is not recorded, prevailed in the city, and by the law that more than one form of epidemic disease is never prevalent at one time, we are justified in attributing this great increase of mortality to scarlet fever. I have derived these statements respecting the prevalence of the disease in this country, chiefly from Webster's elaborate work on Epidemic Diseases, which exhibits the dates at which it prevailed, and the general mortality of each year, without giving any minute detail.

That this disease should affect both sexes equally might be reasonably inferred from the want of any circumstance, which should cause one to be more liable to its influence, than another. From partial observations, varying conclusions on this point have been reached by different authors. I need not now inform you that no accurate results can be obtained by the most carefully arranged tables, unless the observations be conducted on an extensive field. Unhappily for humanity, as well as for the scientific character of our country, the efforts made by the medical profession to arouse attention to the importance of an uniform system of Registration, have not yet accomplished an object so earnestly to be desired. We are, therefore, compelled to resort for extended statistical statements to foreign states. Thus while the private observation of Dr. Tweedie in London leads him to assert, that it is more common in girls; and from the same source, Rilliet and Barthez reach the conclusion, that it is more common in boys, and Dr. J

F. Meigs thinks it "probable that while under puberty, it attacks the two sexes with about equal frequency, and after that age it is most common in females," the reports of the Register-General of England and Wales, quoted by Dr. Gregory, show that in 1838, it destroyed, in London, 747 males, and 777 females; in 1839, 1214 males, and 1258 females. Throughout England and Wales (exclusive of the metropolis) in 1840, 8927 males, and 8935 females. Though in each of these statements there is an excess of females over males, it is so small a fraction of the whole number, that it cannot fairly be ascribed to any especial liabity of one sex to the complaint. If the one sex were more subject than the other to the disease, the difference would be more marked. Extended observation would in all probability change the result.

But while I believe sex exerts no influence over this disease, the relations which *age* bears to it are very important. It is decidedly a disease of childhood, and that, not because all persons are exposed to it in the earlier years of life, and those who are susceptible take it then and lose their liability, but because there is something in the condition of the system during infancy and adolescence, which renders those periods of life especially subject to the disease. Thus you will find that Dr. Kearsley and Mr. Colden both refer to the fact, that the force of the epidemics they witnessed fell upon children, and attempt to account for this preference. It must not be overlooked, that at the date of the visitation they witnessed, the adult inhabitants of the colonies had passed through infancy and youth without exposure, so that their susceptibility could not have been exhausted by a previous attack. That adults are liable to it in rare instances, with great, even fatal severity, cannot be denied. The general expression is, however, correct, that Scarlet Fever is a disease of infancy and childhood.

(To be Continued.)

Case of Hydrophobia in South Easton. Communicated by ABRAHAM STOUT, M. D., of Easton, Pennsylvania.

Mr. Bartholomew, of South Easton, owned a small dog, which he presented, about the beginning of March, 1848, to Mr. Rose, of our borough. After the dog had remained at Mr. Rose's,

during the night, he returned to his old home. In the afternoon of the same day on which the dog returned, he bit the daughter of Mr. Jacob Brown in the face. The dog then disappeared and has not been heard of since. The wounds in the little girl's face were healed, and she enjoyed very good health till Thursday the 20th of April, when Dr. Slough was called to prescribe for irritability of the stomach, attended by occasional vomiting. On Friday she appeared better, but seemed unusually depressed in spirits. At ten o'clock, P. M., on Saturday, the 22d, her father offered her a drink of coffee, and the moment she saw it, she started back in apparently frightful agony.

The father admonished her and told her not to do so; she replied that she could not help it. She then took coffee into her mouth but swallowed it with great difficulty. The sight of coffee or water continued more and more dreadful to her till Sunday morning at six o'clock, when Dr. Slough was again called in. The Doctor was at once satisfied that the girl, about five years old, labored under hydrophobia, and convinced the family of the fact by pouring water, in her presence, from one vessel into another, which threw her into painful spasms. Pressure on the cicatrix of the wounds had the same effect. Dr. Slough proposed a consultation with me. We met at ten o'clock A. M., on Sunday the twenty-third, and concluded to give chloroform and ether a trial in the case. As neither Dr. Slough or myself had used these powerful agents, we requested Mr. Crane, a practical dentist, to put the patient under their influence. Mr. Crane used the chloroform in the first place, and soon put the patient under its influence, when all the symptoms of hydrophobia disappeared; but the disease returned, with an apparent increase of violence, and continued so until the chloroform was again resorted to. After several repetitions of the chloroform, without gaining any advantage over the disease, ether was resorted to; but like the chloroform, it had no farther effect than to suspend the disease so long as the system was kept under its influence, and when consciousness returned, the symptoms of hydrophobia increased, and the sight of a polished surface, such as Mr. Crane's inhaler, would cause her to throw herself back, and bring on spasms of the muscles. No other medicine was used, either general or local, nor was she bled. She expired at five o'clock P. M., six hours after the first use of the chloroform, in the presence of

Doctors Swift, Slough, Sloan, Abernethy, Wagner, Innis, and myself.

Sixteen hours after the patient's decease, I inspected the body, in the presence of Doctors Swift, Slough, Wagner, and Abernethy. The upper part of the scull was first removed, when the blood vessels of the dura mater were seen to be unusually distended, and bled so much from their ruptured orifices as to mark the surface of the dura mater with numerous streaks. After removing the dura mater, the smell of sulphuric ether was as apparent from the brain, as it is from the mouth of a bottle that contains some of that fluid. I called the attention of the physicians who were present to it, and they all acknowledged the truth of the fact. The brain was greatly engorged, and in a groove formed by two of the convolutions, a coagulum of blood existed. By slicing off portions of the medullary part of the brain, the blood vessels, on the surfaces, formed unusually large red spots. No extravasated blood existed in the cavities of the brain.

The lungs appeared in a perfectly normal state. No engorgement of the lungs existed, and from no part of them could we perceive the smell of sulphuric ether; nor did we discover any traces of ether in the cavity of the abdomen or in the stomach and bowels.

Remarks.—From a superficial glance at the above case, it does not appear to possess sufficient interest to deserve a place in a medical journal, nor to be worthy of the time required for its perusal by the respective readers, inasmuch as the symptoms of the disease and the termination of the case are like all the numerous cases of hydrophobia that are upon record; but when we take into consideration the discovery of ether, in its pure and undecomposed state, in the brain, and the only manner in which it could possibly have found its way there, it will incontrovertibly prove the manner in which aerial poisons find their way into our systems, to act as remote causes of fevers and perhaps other diseases. And, moreover, the fact of extensive engorgement of the brain, produced, without doubt, by the chloroform and ether, points out the organ upon which the inhaled poisons principally act.

As far as my experience has gone in the use of chloroform and ether, I feel satisfied that they do not operate upon any disease directly, but upon life itself. A disease is only

brought to a stand by them in proportion and as long as they suspend life. When their effects cease the disease will resume its former progress. As long as we are not in possession of a gage (Vitalometer) to determine the degree of life that we can suspend with safety, so long I shall consider chloroform and ether dangerous agents; and if they are continued to to be used at random, they will in the future, as they have hitherto done in many instances, supersede the disease in destroying life.

Philadelphia, Feb. 24th, 1851.

To the Editors of the Medical Examiner.

GENTLEMEN,—I enclose herewith for your valuable journal an account of Cholera as it appeared in the kingdom of Siam during the year 1849, by His Royal Highness T. Y. Chaufa Mongkut.

It is an extract from the "Supplement to the Bankok Calendar, being a series of communications from His Royal Highness, T. Y. Chaufa Mongkut," printed at Bankok 1850, for a copy of which I am indebted to the politeness of Dr. Hopkinson, U. S. Navy, who has very recently returned from a cruise in the East Indies.

His Royal Highness, Chaufa Mongkut, wears the yellow robe of the Talapoins, and holds the office of High Priest of the Budhist religion. He declined his right to the throne of Siam, in favor of a younger brother, Momfanoi. He speaks English perfectly; the following communication is an evidence of his ability to write it.

According to the government census of 1828, the population of Bankok was 401,300 souls, of which number 360,000 are Chinese or their descendants.

I am, very respectfully, &c.,
W. S. W. RUSCHENBERGER.

Cholera. Communicated by His Royal Highness T. Y. CHAUFA MONGKUT.

The Cholera made its appearance first at Pinang in April last year. Vegetation decayed and turned yellow; and after about a fortnight, the Cholera commenced its ravages, many persons dy-

ing in four or five hours after its first symptoms appeared. It prevailed about three weeks, and then gradually diminished and seemed to remove to the Malay Coast east of Pinang. It spread into 15 Malay villages which are tributary to Siam, viz.—Kedah, &c. Then into the southern Provinces of Siam, as Patani, Songkhla, Patalung, thence passing up the coast on the west side of the Gulf of Siam, reached Chiyah or Bhumriang early in June. Thence it seemed to pass directly to the mouth of the River at Paknam, not affecting the towns on the Tachin or Meklong rivers, or the villages, Banglem and Bangtabhun. It prevailed at Paknam and vicinity, about June 11th, and passing along both banks of the river, appeard at Bangkok on the 15th, very rife on the 17th and 18th, and such was its violence and fatality, that 2 and 300 inhabitants were swept off per day. It continued to increase till on the 23rd, when Chau Phya Bodin Decha, the celebrated Commander-in-Chief of the Siamese army, fell its victim, together with more than 500 persons residing within the walls of the city. From the 23rd, the violence of the disease somewhat abated, and the number of deaths diminished gradually from day to day, until July 16th, at which date things began to assume an appearance of usual tranquillity.

His Royal Highness, T. Y. Chaufa Mongkut gave direction to his servants to visit three of the principal burning or burial places about Bangkok, viz., Wat Saket, Wat Tinlen, and Wat Banglamphu, to visit them daily and take correct account of all the corpses of persons dying of Cholera—brought there to be disposed of by burning or burying. This was done every day for four weeks, commencing June 17th, to July 15th, and the following table shows the number of dead bodies carried to these three Wats or Temples in Bangkok during two weeks in June and two in July.

	Wat Saket.	Wat Tinlen.	Wat Banglamphu.	Total.
June 17	15	12	8	35
18	45	57	38	140
19	135	60	68	253
20	189	97	83	359
21	291	122	80	493
22	344	190	135	669
23	365	200	131	696

24	344	150	94	588
25	226	70	96	382
26	182	50	75	307
27	153	52	66	271
28	86	30	59	185
29	71	60	50	181
30	64	25	43	112
July 1	31	59	41	131
2	53	41	20	114
3	26	26	13	65
4	31	31	12	74
5	16	26	11	53
6	21	26	16	63
7	13	20	14	47
8	14	10	3	27
9	11	15	15	41
10	12	10	16	38
11	4	10	9	23
12	7	10	8	25
13	11	10	5	26
14	7	12	4	23

Total in 28 days, 5457;—average per day, 137. Greatest mortality on the 23rd of June.

From various accounts His R. H. and other considerate persons believe the number of bodies carried to other places from the city and its walls were not more than 1000, besides those above and below—and on the western banks of the river, might be about 6,000 more. This estimate is made by comparing the deaths in various groups of houses extending over limited spaces. It was judged that about one-tenth of the population were swept away by the cholera.

The estimate is placed higher by some ignorant persons, whose fears were unnecessarily awakened, so that they could not give the subject sufficiently careful attention. None, however, doubted but that about 15,000 souls were swept away by this pestilence. Notwithstanding the calamity was so fatal, it fell generally and mostly on prisoners, slaves and common people; but persons of distinction and noblemen, dwelling in high habitations or in floating houses, where the tide flowed regularly, died only in very small numbers. A few princes and princesses and some noblemen of rank, however, fell victims to the scourge.

But those persons who were absent in China and Batavia, had they returned without having heard the tidings, would scarcely apprehend or perceive that any thing extraordinary had happened, or that there was any observable difference or diminution of the people by the death of one-tenth. His Royal Highness regrets that the Siamese Government could not secure an exact census both of the living and the dead—on account of the excitement that prevailed. He has endeavored to ascertain the number of deaths compared with former attacks of the disease. From Bangkok it spread in every direction. On the west to Tachin, Nakon Chaisi, Suphan, Rajaburi, and Mehlong. On the north —to the farthest provinces; and then down south again to Chumpon and Chai yat on the Gulf formerly mentioned,–and on the east side of the Gulf all along to Kambuja. He has learned that the disease raged most at Ayudia in the early part of July, a few days later than at Bangkok. Here the deaths were rare in houses situated within the fosse of the city and in floating houses, but more numerous on the Ta Khian canal. The disease did not reach Pitsanulok, north-eastern province, till late in August. And in the central northern provinces of Sawankhalok and Sukkothai, and western dirtrict of Kampeng pet—not till early in September. Its appearance in the northern parts of Siam, south of Chiang Mai was late in July and early in August. His Royal Highness requested several officers of various small towns to furnish him accounts of the number of persons who perished by the Cholera, together with general statements in regard to the whole population; and he was assured that about one-tenth died in most of the places; except, Anghin, Bangphra, &c., on the east side of the Gulf down to Chantibun, in which places there were but few deaths. The following are *particular examples.*

At Wat Bawarniwes where His Royal Highness resides, the priests and laymen amount to 396;—26 of them died in June. In some places, the proportion was greater. Samkhok—whole population 1254; died 96. The town of Tha Dhani, province of Sawankalok had a population of 558, died of Cholera, 57. At Kahuyang near Kampeng pet on the N. W., out of a population of 1039, 103 died.

At Anghin, east of the Gulf, with a population of 1,025, only

5 died; while at Blangplasoi, only a few miles distant, the deaths were very numerous, which is a remarkable circumstance. But the former is high land, receding from a muddy shore, and the latter low ground terminating in banks of mud and sand. Anghin is subject to a variety of terrible diseases, as fevers, dysentery, small pox, &c., which occasionally prevail in other parts of the country. It is exposed to all winds but the east.

The appearance of the Cholera was unknown till 1819; it was heard of first in India. Some Siamese from Trang, on the west coast of Siam, witnessed the disease, and immediately returned to Siam, and brought the astonishing tidings before the Cholera reached Siam in 1820. It first broke out in Pinang and Trang and followed the same course as this year, by Chaiyah, and Paknam to Bangkok. Thus in 29 years, from 1820—1849, the Cholera has raged twice with great violence. During other years of this period, it has occasionally appeared for a week, but the cases were few.

His Royal Highness thinks it reasonable to suppose that it originates from the influence of volcanic and poisonous gases, or vapor which would be drawn forth by the attraction of the heavenly bodies in their various conjunctions and oppositions, but almost all the officers of government and the people generally, suppose the Cholera to be an attack of an army of demons, or cruel and malicious spirits, who come invisibly, to seize mankind, and make them their companions or servants, or that this calamity was sent by God, as an expression of his displeasure. His Royal Highness and his associates were greatly displeased with such unreasonable, delusive superstitions, and having no confidence in such views, many have become his enemies and strongly opposed him on this subject. The people generally endeavored to check the spread of the Cholera, and protect themselves and families by offerings and prayers to god, gods, and goddesses and evil spirits, with numerous incredulous and ridiculous ceremonies.

His Royal Highness greatly regrets his past neglect to observe the thermometer and barometer, that he might have noted the state of the temperature, and atmosphere at the time of the first attack of Cholera in 1820. He had these instruments when he was 16 years old, but he had no person to explain their use and

importance, and no minutes were made of what they indicated at that time. But he well remembers that the cold was regularly increasing from day to day, from December, through January, and then diminishing till the close of February, when it was very warm. This he recollects as being a uniform process from his youth to the year 1818, when in May, the heat was unusually intense, and in the December and January following, the cold was more severe, but in 1820, before the Cholera commenced, the cold was less, and the heat greater, so that the people said they have never seen the like. In April of that year, the Small Pox raged with fearful violence, and then followed the Cholera in much the same manner as this year. It occurred on the Malay Peninsula in March, when the sun was near the equator, about the vernal equinox, Saturn and Jupiter being in the node, in the signs of Pisces and Aries.

During the 24 years from 1820, whenever the Cholera made its irregular appearance, it has always been when the heat was greater, and the cold diminished or discontinued for many days. Previous to the year 1848, His Royal Highness never observed the thermometer to be above 98° in April, May or June, and its lowest range in winter 60°, and that only for an hour or two in the morning. There was no day when it did not rise to over 70° in the course of the day. The cold has decidedly diminished in Siam since 1818. As evidence of it, we have only to look at the garments of the people. The jackets they used to wear, are scarce and seldom to be seen, almost wholly gone out of use, as this winter '49–50. But in the winter of '48–49, it was cold in November and December, and increased for nearly the two months. Sometimes the thermometer was down to 57° and 58° and continued so for 3 or 4 hours every day in the middle of December, and many successive days, did not exceed 70°. After the first of January, the season soon turned to be hot. This increased till the latter part of April, so that when the sun was in the zenith at Paknam, Bangkok and Ayudia, the temperature was 106°, 105° and 104°, and was not less than 100° till about sunset, and late at night, when it was 98° and 97°. The thermometer shows that the heat was greater in April and May 1849, than for many years before. But when the Cholera appeared in June, the heat began gradually to diminish to 90°, 89°, 88°, and 87°

during the hottest hours of the day, and 81° or 80 in the night; and the barometer showed that the atmosphere was very rare. The difference of similar remarkable situations of planets or heavenly bodies on this and previous occasions of Cholera, was this,—The planet Jupiter had crossed the equinoctial point under the planet Saturn, which was with the node in the same geocentric sign between Pisces and Aries on the last occasion: but on this occasion the planet Mars instead of Jupiter, on the 14th of May last, had crossed the equinoctial point under the planet Saturn, which was on the same place of its former revolution and opposed with the node, which little proceeding from opposition between the signs of Virgo and Libra.

His Royal Highness and his associates have examined whether there were any other such conjunctions, and find none for thirty years or fifteen years past. Hence he concludes that the Cholera has been occasioned by these conjunctions, drawing out the poisonous or deleterious gases, engendered by iron ores and mineral substances, as he has observed that its ravages were greater where such ores and mineral substances abounded, than in sandy and alluvial grounds.

His Royal Highness wished to write also in regard to the curative treatment of Cholera, but regrets he has not the leisure. He does not know how to state many things which would be appropriate to a medical work. He begs leave therefore, briefly to state, that he thinks Epsom salts dissolved in cold or warm water, more efficacious in curing Cholera than any other one remedy, and has saved many patients with it. But the quantity must be much greater than usually employed for other diseases, or it will not prove efficacious. His Royal Highness' adopted son, Pheng Napoleon, has saved many from the Cholera in this way. The readers who desire to cure with Epsom salts must ask Mr. P. Napoleon for the manner of its use or employment, if they do not know.

His Royal Highness would also recommend the free use of the Jack fruit, even the dried fruit as food during the Cholera, from his own experience and observation of its effect in preventing the symptoms of Cholera. Frequent smelling of camphor, or scenting the room with it, and fumigation by burning Gum Benjamin is also beneficial.

Chinoidine in Intermittent Fever. By Lewis Slusser, M. D., of Canal Fulton, Ohio.

Interesting as may be the history of rare and anomalous cases, they afford less of that which is of practical utility, than contributions upon diseases of more common occurrence.

Actuated by this belief, I am induced to make public my experience in the use of Chinoidine in the treatment of intermittent fever. The present high price of the alkaloid quinine, and the probability of its being maintained, render it an object of no small pecuniary consideration to country practitioners, who are compelled to dispense their own medicines, to obtain some reliable substitute less expensive.

Malarious fever is the endemic of this locality, and among its subjects, are a full quota of cases denominated charitable. The same remark will apply to many other sections of our country. For the last several years, impelled by motives of economy, as well as by a desire of professional improvement, I have *experimented* not a little with reputed anti-periodics—officinal and non-officinal. It would be an endless task, were I to attempt enumerating them. It may be proper, however, here to mention, inasmuch as chloroform is at present going the rounds as a succedaneum, that soon after its introduction into practice, I was led, from a knowledge of its power over the nervous system, to give it a trial; which I did in repeated cases, in different forms, and in varied combination; but found it entirely inefficacious—unworthy of the least confidence.

In the treatment of simple, uncomplicated intermittent, of a tertian or quartan type, I have as yet found no substitute equal to chinoidine. In quotidian cases, I have not succeeded so well; from the circumstance, as I believe, that the short intermissions will not allow sufficient time to bring the system under its influence. Where I could induce the patient to continue its exhibition through several intermissions, the disease invariably succumbed.

By medical statistics, or numerical analysis as it is termed by some writers, we are enabled to determine satisfactorily the value of a certain remedy in the cure of a specific disease. Success in a few isolated cases, is not sufficient to establish the merits or demerits of any article. A non-observance of this fact

has often tended to bring reproach upon the writer, and consign his vaunted remedy to unmerited oblivion.

I have kept an accurate record of forty-two cases of intermittent, treated exclusively with chinoidine. These were of persons residing near at hand, coming almost daily under my observation, and the results of which I could note with confidence. Itinerant cases, I did not record. Of these forty-two cases, twenty-six were quartans; the balance, sixteen, were tertians. In all, when given in the mode and manner I shall hereafter direct, it was checked, without the recurrence of another paroxysm. Of the quartans, two relapsed on the eighth, and three upon the twenty-eighth day. Of the tertians, one relapsed upon the ninth, and two upon the twenty-first day. All of these were again checked by the same mode of treatment, and with the residue, have thus far escaped a relapse. According to this table, the proportion of relapse cases, is less than one-fifth of the whole number; a result which I think will compare favorably with the quinine treatment.

Upon a principle in therapeutics, that a combination of several articles of like properties will increase the aggregate effects, I have for the last year been prescribing chinoidine in accordance with the following formula.—

℞ Chinoidine ℥j.
Tart. Acid,
Cinch. Rub.,
Cascaril. pulv.,
Val. Rad. pulv., *aa.* ʒij.
Ex. Quas.,
Ex. Gentianæ, *aa.* ℥ss.
Mucil. Acaciæ, q.s.
M. Divide into 480 pills,

Of these, I usually prescribe to an adult, sixteen, two to be taken every three hours, commencing immediately after the subsidence of the last paroxysm, and continued during the daytime until all are taken. To guard against relapse, I order six on the twelfth and thirteenth day after, counting from the last paroxysm; and the same quantity repeated on the twenty-sixth and twenty-seventh day.

The preparation of chinoidine that I have employed, was that

manufactured by Powers & Weightman, Philadelphia. The combination with Comp. Ex. Colocynth recommended by them in a circular accompanying the article, I have found objectionable, as being apt to disturb the bowels. I have used it successfully in conjunction with piperine, but the combination given above I have found from experience to be the more efficacious in meeting the indications.

In conclusion, I would remark, that I consider chinoidine entitled to more consideration than it has yet received from the profession, as a successful and comparatively cheap remedy in the treatment of intermittent fever.

CLINICAL REPORTS.

Summary of the course on Demonstrative Surgery in the University of Pennsylvania, March 1st, 1851.

(Reported for the Examiner.)

At the close of our last paper, a brief reference was made to some of the cases shown at the end of the hour, and especially to a rare form of dislocation of the femur. As the demonstrative course terminates on the 1st of March, in order to facilitate the arrangements connected with the extension of the term of lectures to the 1st of April, we have only the cases of this day and the details of the dislocation to report.

Large Tumor in the Ham.

The first patient brought forward by Dr. Smith on the 1st of March, was an example of some of the difficulties attendant on the diagnosis of swellings found in the Popliteal Region. The patient, aged about 30, was a day laborer, and whilst engaged, Sept. 1850, in carrying corn to the third story of a warehouse, felt something give way behind his left knee joint. This was soon followed by pain and swelling to such a degree, as to in-

terfere with his ordinary labor. A few days afterwards, when Dr. Smith saw him, the tumor was about the size of a small egg; situated on the inner side of the ham; not moveable; slightly elastic; not painful on pressure, but with an obscure sense of pulsation and fluctuation. From the difficulty of deciding as to its character, a palliative treatment was adopted, with but little relief and without arresting the increase of the tumor. On his re-appearance to day, the tumor was found to be larger than an orange; quite tense; evidently beneath the fascia; could be partly diminished by pressure, but was now free from pulsation. Another small tumor, similar in appearance to this, at its commencement, was now also found in the right ham ; and the right elbow beneath the triceps tendon presented something of the same kind, with stiffness of the joint, perfect extension being impossible. Being satisfied, therefore, that no aneurism existed in the ham, but that the disease was a bursal tumor, opening into the knee joint, the Dr. determined to evacuate its contents by a valvular puncture, and be guided in the after treatment by circumstances. With this view he introduced a small trocar and canula beneath the skin; carried it to a short distance from the point of entrance; tapped the tumor on the opposite side to that where the skin was opened, and drew off over four ounces of clear straw-colored synovial fluid. The instrument being then carefully withdrawn, so as to exclude the air, the opening was closed. In about ten days the cyst again filled, and the patient is yet under treatment.

Hard and Soft Cataract.

The next patient shown, was an elderly man from Montgomery country, who was suffering from double cataract, one of them being of fifteen years standing, and both apparently soft in their consistence. The pupils being well dilated by belladonna, Dr. Smith determined to operate on both eyes, and with the left hand introduced the needle into the right eye, lacerated the capsule and evacuated a softened lens, enabling the patient to see immediately. Then changing the needle, he introduced it with the right hand into the left eye, and finding the cataract firm and hard, depressed the lens out of the axis of vision, so as to enable the patient to see with both eyes before leaving the lec-

ture room. Subsequntly the symptoms were of a trifling character, and the inflammation quite moderate. The patient's pupils are now entirely clear.

Case of Vesical Calculus, removed by Lithotomy.

On the removal of this patient, Dr. Smith next presented a man laboring under stone in the bladder, of about two years duration. This patient, aged forty-three, had lived in Philadelphia for the last seventeen years, and previously in Ireland; knew no cause for his disease except intemperance, and this he ascribed, during the last eighteen months, to his sufferings since the formation of the calculus. At one time he had drank over one pint and a half of whiskey per diem, but for the last six months had taken much less, and lately abstained almost entirely. He had all the symptoms of stone well marked, his constitution was giving way under suffering and bad habits, and there was also considerable ossification of his arteries. Believing from the apparent character of the stone as shown in sounding, from the general symptoms, and from his domestic circumstances, that lithotripsy was not adapted to the case, a consultation had advised him to submit to lithotomy. Sounding satisfied every one who was near, that the stone was a hard one, as with silence in the room, the click of the sound could be heard some distance. It was also deemed of considerable size, and Earle's forceps were kept in readiness for service if it should be necessary to crush the calculus, previously to its extraction. The patient having been, therefore, as well prepared by previous treatment as was possible, was placed upon the table in the ordinary position for lithotomy, and cut by Dr. Smith, (assisted by Drs. Horner, Wallace, Neill and Page,) by the usual lateral operation and the gorget. No anæsthetic was resorted to, as it was deemed unadvisable to attempt etherisation in the case of one so habituated to liquor, and with such disease of his circulatory organs. On opening the bladder, the stone was found to be attached to the left side of the viscus, and very rough and large, rendering it a difficult matter to place it fairly in the grasp of the forceps. Considerable care therefore was necessary in freeing it from its attachments and extracting it, but by cautious manipulation and further dilation with the bistoury, this was successfully accomplished. The operation, including the period consumed in the

efforts at extraction, (which constituted the great difficulty,) occupied 17 minutes. On examination, the stone proved to be a rough and large one, measuring two and one-eighth inches in its long diameter, and one inch and five-eighths in its transverse measurement. On chemical analysis by Dr. Rogers, the Professor of Chemistry, it was found to be phosphate of ammonia and magnesia, together with a small amount of phosphate of lime, with a nucleus the size of an English walnut, resembling a mulberry calculus. Its weight was ℥ij. gr. xvii. besides some portions crushed in the efforts at extraction and lost. From the thickness of the perineum and the ossified state of the blood vessels, the hemorrhage was free from branches of the hemorrhoidal and transversa perinei, each of which required a ligature. A catheter being then left in the wound, the man was placed in bed as usual and rallied well from the operation. Twelve hours afterwards, the urine ran free and clear through the catheter, and he has not since had a bad symptom. Much of his comfort and favorable condition has been due to the devoted attentions of the members of the class,* who nursed him most sedulously for some time after the operation. The urine has now passed through the urethra, the perineal wound is healing, and he is now (March 25th,) nearly well.

Amputation of the Breast.

Immediately after this patient was carried to his bed, Dr. Smith introduced a lady who had been laboring for several months under scirrhus of the mamma of the right side, the result apparently of inflammation and thickening consequent upon suckling. During lactation, four years since, she had suffered from a milk abscess, and from the irritation consequent upon this, scirrhus had developed itself. The tumor was now about the size of an apricot, accompanied by a tendency to retraction of the nipple, and the other well marked signs of Cancer. After moderate etherisation the Dr. removed the breast in the usual manner, extending the dissection slightly into the axilla, in order to free it from all possible points of diseased structure. The wound was then dressed in the ordinary manner, and has healed rapidly.

*Messers Vogdes, Hempstead, Little, Jackson, Wilson, Horner, Ware, Kieffer, &c.

These operations having occupied the hour, the demonstrations were closed by a few valedictory remarks by Dr. Horner.

Dislocation of the Femur directly backwards.

In referring to the rare character of the dislocation in the last report, want of space prevented our presenting its details. They are as follows: A man aged about 35, whilst assisting to push a line of coal cars, was jammed with a companion between two of them. As well as he can recollect, he was struck on the buttock and jammed against the front car. His companion was killed, the patient owing his life to the death of his fellow-laborer. The terrible contusion, swelling, &c., which continued for three weeks after the accident, prevented anything like an accurate diagnosis, though a fracture of the neck of the femur was suspected. At the end of five weeks, as he suffered much pain in the hip and down the limb, and was unable to bear his weight on the leg, a further and more minute examination by Dr. Horner, detected a dislocation of the head of the femur upon the ischium, between the spine and the tuberosity. The signs were as follows:—1st, increased width and flatness of this buttock. 2d, A hard round tumor (head of bone) beneath the gluteus magnus muscle, or rather about the junction of the gluteus medius and magnus. 3d, Very slight shortening, the heel not touching the ground when the pelvis was held firmly. 4th, Foot apparently natural when in bed. 5th, When standing erect, toes can be turned to metatarso-phalangeal articulation of opposite foot and no further. 6th, Toes can be turned out about thirty degrees, and no more. 7th, Abduction of femur imperfect. 8th, Adduction nearly perfect, as also flexion and extension.

Summary of the symptoms.—Perception of head of femur and its motion, on motion of limb. Very slight change in the length of limb. Very slight variation of line of toes, but impossibility of fully inverting and especially everting the foot. Two days after use of pullies as before detailed, eversion of foot possible to 90 degrees; inversion perfect; improved rotundity of buttock; re-appearance of the hollow of the buttock, just above the trochanter major; abduction of thigh easy, and patient fully sensible of a change in the state of the part as well as of more freedom in his motions.

Cases of Plastic Surgery, by Prof. GILBERT. *Clinique of the Pennsylvania College.* Reported by Dr. H. J. Richards, Clerk of the Medical and Surgical Dispensary.

From our register of surgical cases requiring operative proceedings, I select the two following, as possessing in themselves peculiar interest; the first demonstrating the occasional success attending operations performed for the restoration of parts destroyed by malignant disease; the second presenting some modifications in procedure, rendered necessary by the extent of the injury, and the nature of the structure which remained.

Case 1.—Miss Sarah Queer, æt. 36, residence, Lehigh Co., Pa. Presented for operation by her medical attendants, Drs. Detweiler and Martin, who stated that the patient had lost her nose by lupus, and that the parts had cicatrized, and continued well for four years. On examination, all the cartilages, more than half of the ossa nasi, vomer, the whole of the spongy portion of the ethmoid, and the contiguous portion of the ossa maxillæ superioris, were found destroyed. The site of the organ was occupied by a cicatrix, in the centre of which was a small circular opening about three-eighths of an inch in diameter, around which the integument was drawn into radiating plicæ.

The patient being in good health and condition, the operation was performed in the presence of the class of the College, on

the afternoon of the same day, (Nov. 24th, 1849,) in the usual manner, by bringing a flap of integument from the forehead, after having made preparations for its reception by incisions down to the bone, through the margins of the opening, between the nasal processes of the superior maxilla. The integuments and cicatrix included within these incisions, were separated above and laterally, to be used in the formation of the septum in the construction of the new nose. The patient was rendered insensible to pain by the inhalation of a mixture of chloroform and ether. Under appropriate after treatment the case progressed favorably for about ten days; quick union took place between the flap and its new attachment. At this juncture, erysipelatous inflammation made its appearance, in consequence of which all treatment, except that demanded by this new state of things, was suspended. The patient having recovered, it was found that the septum was entirely destroyed, leaving, however, the union that had already taken place, unimpaired. Fearing the return of the erysipelatous inflammation, it was thought advisable not to perform the supplementary operations for the restoration of the septum, or the division of the pedicle during that session.

Oct. 21*st*, 1850. *Supplementary Operations in the above Case.*

Remarks.—You recognize the subject of a plastic operation performed in your presence last session. You see her in good health, and anxious for the remaining operations. The pedicle you perceive has lost its twist; the probe, however, passes readily between it and the part subjacent. It will be sufficient therefore, merely to freshen the edges, and make incisions into the skin adjacent, and then to attach the margin of each side of the pedicle to the skin, without disturbing the circulation. As to the septum, you perceive that granulations have been thrown out, so as to occlude entirely the nasal cavities. Nothing remains, therefore, but to puncture the solid structure on each side of the mesial line, in the course of the natural apertures, so as to make a communication with the general cavity of the nares; and to keep it patent by means of glass tubes, until the surface is covered with mucous membrane.

These operations were accordingly performed, and the patient

presents the highly improved appearance represented in cut 2, from a daguerreotype by Laughlin.

Case 2. *December* 7*th*, 1850. H. Hullinger, æt. 21, residence, Gettysburg, Pa. The hideous aspect of the subject of this operation, suggested the forbidding spectacle of the dissecting table—a human face without a countenance—no feature remaining in its integrity, to impart a living expression to the scarred remains. The following cuts from daguerrotypes taken prior to the operation, convey in some degree, the appearance of the unfortunate patient.

This frightful mutilation was the result of a gun-shot wound. The circumstance occurred about 13 years ago, as follows. Being at play in a room with a companion, who was amusing himself with a loaded musket, the piece was accidentally discharged, the whole contents, consisting of an ounce ball and three buckshot with wadding, passed through the face of the patient, entering at the right side, and causing the most extensive destruction of the soft parts of the face, anywhere to be found in the records of surgery. Nearly every bone between the lower jaw and the cranium, was either displaced, or shattered. The nasal processes of the superior maxilla, turbinated bones, vomer, and ossa lachrymalia, were entirely removed, or discharged during the process of healing. The anterior portion of the os ethmoides, as well as the anterior parts of the ossa maxillæ sup., were also carried away. The remaining fragments of the latter bones, with the ossa palati, were disarticulated, and fell together, so as to obliterate the nasal passages. The highmorean cavities were exposed, and there remained only enough of the alveolar margins to contain five molar teeth, which, owing to the loss of intervening substance, approximated, so as to place them considerably posterior to, and consequently within the incisors of the lower jaws. The destruction of soft parts was equally extensive. The buccinator region of both sides, the upper lip, and portions of the masseter muscles were removed. The integument below the eyelids to the extent of about an inch on the right,

and rather less upon the left side, with part of the nasal integument, only remained intact. The parts were adjusted after the accident, without any expectation that recovery was possible. The patient, after a tedious confinement of several months, survived, and has since enjoyed excellent health. His habits are good, and at this time his system is in the best possible condition for a successful operation. This, and his urgent desire for an operation, remarked Dr. Gilbert, have induced me to make an effort to improve his appearance by means of plastic surgery, with the aid of anæsthesia. The destruction of bone and soft parts having been so extensive, as you perceive, it would be a boast to promise more than an improvement. The depression in the centre of his face, the large amount of cicatrix, the consequent scarcity of material, from which to re-construct an upper lip, all present difficulties not met with in ordinary rhinoplastic operations. It is my design to bring the material for the nose from the forehead, except the septum, which can be brought up from the remains of the nasal integument; and to construct the lip by means of two rectangular flaps from the cheeks, drawn together so as to unite at the mesial line.

The usual preparations having been made, the operation was accordingly performed in the presence of the class, by Dr. Gilbert, assisted by Drs. Darrach, Grant and Hunter. When completely under the influence of chloroform and ether, proceedings were commenced by making incisions to include a triangular flap upon the forehead. V incisions were then made for its reception in its new position, preparations having been previously made for the attachment of the remaining fragment of nasal integument, intended for the septum narium. The rectangular flaps, designed to supply the place of the upper lip having been separated from the cheeks, and the cicatrices and remaining soft parts dissected from the bones beneath, an impression in wax was taken, from which a plaster cast was afterward made, representing the shallow highmorean cavities, and the relative position of the superior maxillæ and teeth, to the lower maxillary bone.

The incisions completed, the triangular wound in the forehead was closed by suture connecting the angles, and adhesive strips,

with lint dressing. The flap was twisted on its pedicle, and secured in the grooves for its reception by three double sutures on each side. These sutures were introduced by using double armed ligatures, each extremity being first passed through the integument on the inner side of the sulcus, next through the margin of flap, and lastly brought out through the outer margin of sulcus, thus dovetailing, as it were, the margin of the flap into the corresponding incisions made for its reception. The flaps for the new lip were retained in apposition by two large gold needles and one of smaller size in front; and secured above by stitches of interrupted suture to parts prepared for their attachment. The open spaces on the cheeks were secured as on the forehead, and dressed with lint. Supplementary operations were required to repair the want of union at different points, owing to the feeble organization of the large amount of old cicatrix, which constitutes the material. Operation from $9\frac{1}{2}$ to $10\frac{3}{4}$ A. M.

I shall abbreviate the daily report made by the senior students who had charge of the case from date of the operation until 16th inst., after which time his condition required no special attention.

Dec. 7th, 5 P. M.—No collapse, pulse 68, skin in good condition, patient comfortable. $8\frac{1}{2}$ P. M. Pulse 72, quick. Dr. Gilbert punctured the nose to relieve congestion. Sol. morph. sulph. f. ʒiss., which procured sleep.

Dec. 8th, 12 M.—Pulse 72, skin cool and moist. 8 P. M. Pulse 78, organ congested, evacuated blood ad f.ʒiii. 12, midnight. Has had three hours sleep, considerable cough and dyspnœa on awaking, pulse 80. Sol. morph. sulph. Had an inefficient stool.

Dec. 9th, 7 A. M.—Pulse 75. Slept well during the morning. 2 P. M. Pulse 80. Ol. Ricini f.ʒss., which procured two good evacuations. $9\frac{1}{2}$ P. M. Pulse 88, sol. morph. sulph. f.ʒiss. et pulv. Ipecac gr. ii.

He continued about the same till the 11th inst.; pulse averaging about 90, with some slight febrile exacerbation and cough towards night; bowels easily acted upon by mild purgatives; skin pleasant, and condition pretty comfortable. Upon the 11th, after a comfortable sleep during the night, he awoke at

7 A. M., with quickness and frequency of pulse. Several stitches were removed; a purgative enema exhibited, as also sol. morph. sulph. and aq. lauro-cerasi. 9 A. M. Pulse reduced to 100; delirium gone.

The patient progressed through the remainder of his convalescence, without any notable symptoms; requiring simply an antiphlogistic and sedative treatment with simple dressings. Satisfactory union took place between all essential points, excepting the anterior margin of the two rectangular flaps, which rendered a supplementary operation for simple hare-lip necessary.

Having completely regained his strength, this, as well as the usual operation upon the pedicle was performed. The former was sufficiently united at the 5th day to allow of the removal of the needles. The latter was performed as in our first case, the object being here to elevate the bridge by permitting the twist to remain. Dr. Gilbert stated that in those cases where the pedicle was divided, and communication through that channel thereby cut off, he was in the habit of making compression upon it for a few weeks prior to the operation, in order that the collateral circulation might be fairly established.

The following cut is from daguerreotype taken eleven weeks after the operation.

Clinic of the Jefferson Medical College. Service of Professors PANCOAST *and* MÜTTER. Reported by G. R. MOREHOUSE, M. D., senior Clerk of the Surgical Department.

Clinic of January 4th, 1851.

Cases presented this day :—Ophthalmia tarsi, of sixteen years duration ; Bronchocele ; Thecal abscess ; Dislocation of Radius, *backwards ;* Caries of Turbinated bones ; Inversion of Toe-nail ; Perforating ulcer of the Cornea ; Spasmodic stricture of Œsophagus; Congenital fissure of the Soft Palate ; Urinary Calculus ; Scrofulous Eruption of Skin ; Pterygium ; Ozœna ; Syphilitic Ulceration of the Arm, extensive ; Cataract ; Varicose enlargement of the Crural Veins; Amaurosis; Hydrocele; Scrotal Hernia; Irritable Ulcer of the Leg ; Enlarged Tonsils ; Cancer of Breast; Ulceration of Soft Palate ; Psoas Abscesses ; Lipoma Diffusum ; Albugo ; Strabismus convergens double ; Strabismus Divergens ; Ulceration of the Thigh ; Spastic contraction of Pectineus muscle ; Fistula Lachrymalis; with caries of Os Unguis ; Prolapsus Iridis ; Caries of head of Femur ; Conjunctivitis ; Laceration of External Lateral Ligaments of Ankle ; Scrofulous Tumor of Neck, very large ; Fracture of Fibula ; Tumor of the Penis, analogous to a Bubo ; Cancer of Pylorus ; Injury of Lumbar Plexus ; Lepra Syphilitica ; Otorrhœa. Total 44.

The following cases were operated upon before the class, by Prof. Pancoast.

Case 1*st. Pterygium Musculosum.*

The patient, Thomas Johnson, æt. 24, has for some time past, been laboring under chronic inflammation of the conjunctiva ; this however, has subsided, leaving apparently, as a sequent, the disease which you here see. Upon examining the eye, we find a circumscribed, sub-conjunctival cellular structure, thick, elevated and highly vascular, of a triangular form, having its base incorporated with the plica semilunaris, and its apex extending towards the central point of the cornea. In color, this variety of Pterygium closely resembles muscular fibre, hence the name crassum or musculosum, to distinguish it from the Pterygium tenue which is thin, membranous, and semi-transparent. A Pterygium is not painful, and when confined to the sclerotic conjunctiva, gives lit-

tle inconvenience; its removal, therefore, is seldom desired, until by encroaching upon the cornea, it forms an impediment to vision.

The plan of operation adopted by Prof. Pancoast, which is novel and very successful, is as follows: The patient is seated on a chair, and directed to turn the affected eye *out*, or *in*, as far as possible, according as the Pterygium is situated on the nasal, as it most usually is, or temporal side of the orbit. An assistant supports the head against his breast and separates the eye-lids as in the operation for cataract, or with the spring speculum employed by Dr. P. in Strabismus. The surgeon standing in front, then seizes the Pterygium with a pair of hooked forceps, raises it from the sclerotica and passes a delicate needle armed with the finest silk ligature beneath it, avoiding any encroachment upon the semi-lunar fold. The ligature is then tied, and that portion of the Pterygium on its corneal side removed with a delicate scalpel or curved pair of scissors, as in the old operation. In a few days the ligature comes away, the vessels are effectually sealed, and the risk of their reproduction in a great measure precluded. The cicatrisation of the raw surface left, is aided by slightly touching it from day to day with the caustic pencil.

Case 2d. *Enlargement of the Tonsils.*

John F. Scott, æt. 45, complains of a sense of fulness or obstruction about the throat, which is rendered especially evident during deglutition. His voice during eight years past has undergone marked alteration, becoming rough and thick; he is, moreover, subject to a continual hacking cough, with occasional inclination to vomit. Upon the slightest exposure all these symptoms become aggravated; sometimes his hearing is materially affected, and his articulation rendered indistinct. Upon examination, the tissue of the uvula and soft palate was found œdematous; the tonsils were enlarged to such an extent as almost to close the opening of the fauces; were possessed of little sensibility; feeling firm and resisting to the touch, and presented on their surfaces numerous ragged follicular orifices filled with tenacious mucus.

This chronic state of enlargement to which the tonsil is subject is generally the result of repeated attacks of acute inflammation, and is frequently found associated with the strumous diathesis.

The proximate cause is the hypertrophy of the areolar tissue in which the mucous follicles of the gland are imbedded; the repeated deposits of lymph which take place at each successive inflammation remaining unabsorbed. Enlarged tonsils are seldom painful, but are generally removed to obtain relief from the inconvenience their bulk occasions. When large they offer serious impediment to deglutition and phonation, and frequently produce deafness by blocking up the openings of the Eustachian tubes.

When the enlargement is chronic, local applications will prove of little avail, and partial extirpation becomes by far the most speedy and effectual treatment. To accomplish this, various methods have been proposed; the ligature and caustic have each met with strong advocates among the older surgeons, but excision in modern hands has proved most satisfactory, and at the same time most certain. If excision be decided upon, the operation may be thus performed. The gland being seized with a pair of hooked forceps or a tenaculum, is drawn tense, a probe pointed bistoury well wrapped at its base, to prevent the mouth being cut, should then be introduced beneath the gland, and a portion of the tumor removed, cutting upwards in a line parallel with the arches of the palate. The objection to this operation is, that in children and those in whom the fauces are irritable, the grasp of the forceps occasions such severe coughing as to render the use of the bistoury troublesome and dangerous. It is therefore advisable to employ for their removal the guillotine instrument of Dr. Physick, or some of its modifications. The oval instrument of Fahnestock with a spring forceps attached for the purpose of drawing the gland well within the grasp of the knife, is preferred by Prof. Pancoast. Not being capable of receiving a very keen edge, its use is thereby less liable to be followed by hæmorrhage. In the present case it was used successfully. The glands were removed and the patient ordered to use for a few days, an infusion of white oak bark as a gargle.

Case 3d. Lipoma Diffusum.

Alexander Matheson æt. 24, presents himself with a tumor over the right scapula: it is not painful, but its rapid enlargement combined with the inconvenience and deformity it occasions, has induced him to apply for its removal. The tumor presents all the external characteristics of that variety of fatty

tumor designated Lipoma Diffusum; it is lobulated, freely movable, gives no pain upon handling, feels soft and slightly elastic to the touch, and has no well defined edges, but rises gradually from the surrounding tissue. The causes of fatty tumors are not known: they are frequently congenital and when occurring in adults can seldom be traced as the result of external injury. They depend upon an unnatural accumulation of fat in the enlarged fat cells, and are most frequently found upon the back and neck, presenting two varieties; those having a broad base, as in the case before you, and those attached by a neck or peduncle and generally of an oblong shape. Fatty tumors are generally seated in the superficial fascia; sometimes, however, they occupy the deeper areolar tissues, developing themselves under muscles and in other situations which render them more difficult of recognition. As an example of this, there was during the present winter a child between three and four years old presented at the clinic, with a very large congenital tumor, occupying the scrotum and extending up the chord and through the external abdominal ring, presenting very much the appearance of a large scrotal hernia. This, Dr. Pancoast observed, was in all probability, a local accumulation of fat, which some of the older surgeons have called, though improperly, adipose hernia. Upon removal, the tumor was found to be adipose in its character, having its origin from the adipose and areolar tissues of the spermatic cord within the inguinal canal.

When fatty tumors are small, their absorption sometimes, though rarely, may be effected by friction and iodine applications and pressure; the knife, however, supplies us with the only sure method of removal. The operation is seldom bloody or dangerous, but may be rendered so from the great size of the tumor, or its intimate relation with important parts, or the too free use of the knife. The incision through the integuments should be free, the cyst, when they are provided with one, fairly opened, and the tumor dexterously worked out with the forceps and the handle of the knife, the strong adhesions alone being divided with the edge. In the present case, the tumor was grasped about its middle, and raised from the tissues beneath; a curved bistoury was then plunged through its base, and the tumor and integument divided at one cut. Each half of the tumor was

turned out from the healthy tissue enveloping it, and two small vessels tied. When all oozing had ceased, the wound was closed with stitches and adhesive plaster. The dressing consisted of lint spread with simple cerate, and a compress and roller to keep the surfaces of the wound in close apposition. The arm was put in a sling to keep the shoulders at rest.

Case 4th. Cancer of Breast.

The patient thus gives the history of the case. Sixteen years ago, her attention was directed to the left breast, by the appearance of a small moveable tumor, in the substance of the gland about an inch external to the nipple. As the disease advanced, the tissue surrounding the areola became indurated, and the nipple commenced receding, becoming thick and short and causing the skin by which it was covered to arrange itself in circular folds like a turban. At the expiration of six years, the nipple had entirely disappeared; the indurations embraced a more extensive surface, and the gland was subject to occasional attacks of pain.

The breast maintained this condition unaltered until the beginning of the past year; since then the paroxysms of pain have been more frequent, and lancinating; not being confined to the breast, but extending into the axilla and through to the back.

Upon examination, the integuments were found unbroken, although somewhat adherent to the hardened gland beneath; the nipple was entirely inverted, its site presenting a deep depression with an almost cartilaginous edge. The axillary glands were not sensibly affected. There was a constant feeling of uneasiness in the breast, which shortly after handling became converted into excruciating pain.

The removal of the breast was decided to be necessary. For this purpose the patient was placed in a chair, the arm held at right-angles from the body, and the skin made tense by an assistant. The surgeon sitting in front made an incision commencing at the anterior margin of the axilla, and carrying it below the nipple to the inner inferior boundary of the gland, cutting through the integument and superficial fascia. The second incision extended between the same points, being carried above the nipple. The gland was then dissected out, cutting from

below upwards, and removed, with a portion of the pectoralis major muscle, to which it had become attached. The vessels were tied, and the wound left exposed to the air until oozing had ceased. The edges were then drawn together and retained by suture and adhesive plaster. The dressing consisted of lint spread with simple cerate, a compress and breast bandage drawn firmly over the wound. After the operation, she took a sedative mixture to prevent excessive febrile reaction.

Case 5th. Prolapsus Iridis.

Mary Ann Wiley, æt. 11, a fleshy child of strumous habit, has for some time been laboring under an attack of scrofulous corneitis. While playing with a fork she struck the cornea of the right eye with one of the prongs. The prong penetrated it at a distance of two lines from its junction with the sclerotic. A portion of the aqueous humour escaped, and subsequently the iris protruded to the degree designated myocephalon.

Professor Pancoast first endeavored to reduce the protrusion with a probe, and by gentle friction on the ball, but finding this impracticable, he snipped it off with a pair of scissors, and permitted the iris to retract. The child was put under the following treatment:

℞.	Hydg. chld. Mit.	gr. $\frac{1}{3}$
	Pulv. opii	$\frac{1}{6}$
	Ext. Belladonnæ	$\frac{1}{6}$

To be taken twice daily until all the pain has ceased or the gums are touched. One-half a drachm of a mixture of equal parts of extract bellad. and mercurial ointment to be rubbed night and morning round the orbit. Both eyes to be covered with a soft compress and bandage, for the purpose of excluding the light, and keeping the lids at rest. The prognosis, after a puncture of the cornea with a blunt instrument, as in this case, especially if the iris or ciliary body be touched, is, in a majority of instances, unfavorable, so far as regards the preservation of sight. The loss of vision may arise from the inflammation of the lining membrane of the aqueous chamber and the iris, by which the pupil becomes permanently closed, or the iris fastened by a deposit of lymph, to the inner surface of the cornea (*synecha anterior*) or to the capsule of the lens, (*synecha posterior;*) or if the injury of

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these parts, be subdued by the treatment, blindness may follow in consequence of the lens, or its capsule, becoming opaque a few days subsequent to the accident. In either of these cases relief, should it become necessary in consequence of an accident to the other eye, may be obtained by a surgical operation, the formation of an artificial pupil, or the operation for cataract. But if the ciliary processes and choroid tunic suffer, another train of symptoms ensue, more especially to be dreaded, as it is very commonly followed not only by permanent loss of vision, but by great enlargement and deformity of the eye-ball. The inflammation of these vascular structures is accompanied with great pain and distension of the ball, and a profuse secretion of the aqueous humor. Finally the sclerotic coat yields to the distension, and lets the swollen veins of the ciliary processes, which have become large and varicose, rise up in the form of dark blue tumors round the base of the cornea. This becomes a hideous deformity, and the eye protrudes so as to form a case of exophthalmus. If the tumors be tapped to reduce the swelling, or a spontaneous diminution of the ball takes place subsequently, the ball is liable to shrink below its natural dimensions and become atrophied. The lecturer then enforced strongly upon the class, the importance of making a guarded prognosis, after wounds made through the front of the eye with blunt instruments, and endeavoring to check as speedily as possible by an antiphlogistic course of treatment, and by the use mercury, opium, and belladonna, the traumatic inflammation which may lead to such deplorable results. In the present case, he observed, in consequence of its complication with scrofulous corneitis, we may be compelled, in a day or two, to modify the plan of treatment by applying lunar caustic in substance to the corneal wound, or in solution to the conjunctiva, and giving quinia internally.

NOTE.—The results in the above cases have been most satisfactory. In the first case scarce any sign indicative of the previous existence of a Pterygium can be detected. The incisions in cases 3 and 4 healed rapidly. Both patients were discharged in three weeks, to all appearance cured. In case 5th, inflammation was kept in abeyance; the wound has healed and the eye is perfect, with the exception of slight cloudiness of the cornea.

BIBLIOGRAPHICAL NOTICES.

Report of a General Plan for the promotion of Public and Personal Health, devised, prepared and recommended by the Commissioners appointed under a resolve of the Legislature of Massachusetts, relating to a Sanitary Survey of the State. Presented April 25th, 1850. Boston, 1850. For sale by Lindsay & Blakiston, Philadelphia.

An English reviewer, alluding to the great number of works on hygiene, has observed, that "sanitary publications are now 'as plenty as blackberries.'" While this quaint remark may be apposite to the science of health abroad, it has neither force nor meaning on this side the Atlantic.

On the Continent, especially in France and the German and Prussian States, sanitary and medical police are under the control of government, and have been applied extensively to society. In England, within the last five and twenty years, sanitary improvement has become a popular question. It is one of the great questions of the day. Men of science, physicians, philanthropists, and members of parliament, are fully aroused to a sense of its importance, and are lending both their public and private influence to favor its advancement. Health associations have been organized, and the members are urging their claims upon the people with a zeal well becoming the intrinsic merit of the sanitary question.

With us, however, the case is widely different; sanitary publications being rare. It is only of late years, that the subject has created any interest whatever. Here and there, beyond the pale of the medical profession, may be found a solitary advocate for the science of Public Health; but, with the masses, the whole question is almost, if not altogether void of interest. With the medical profession at large, we might also say with truth, it is an "unexplored region of medical inquiry," notwithstanding it embodies principles and facts, intimately interwoven with the preservation and invigoration of human life, as well as the removal of many of the productive causes of disease and death.

By our public authorities, the laws of health and life, of happiness and usefulness, have been shamefully neglected; nor will the well-timed animadversion of Dr. J. Curtis on the acts of the Legislature of Massachusetts, in his report on Public Hygiene, read before the American Medical Association, at its sitting in May 1849, apply with less force to the government of this and every other state in the confederacy:—"We have legislated, *usque ad nauseam*, on almost everything but that which concerns us most, namely, the surest sources of health and life, and consequent happiness and prosperity. By legislation, we have protected the beasts of the field, the fowls of the air, and the fish of the sea; by legislation, we have encouraged the arts and sciences, except those which would most directly enable us to live long, useful and happy; by legislation we have granted privileges to the manufacturer, developed the resources of the agriculturist * * * * * * * * all of which, is most praiseworthy; but we have neglected to use the means, for securing attainable longevity and exalted happiness, as well as some of the most prolific sources of state wealth." There is more truth than romance in this expressive extract, and it is deeply to be lamented, that the study of life-knowledge, one of the most sublime subjects that can engage the human intellect, should be so little regarded by the wise and the good.

We may congratulate ourselves, however, that a brighter day is dawning upon us, in this department of medical science. Recently, sanitary reform has been the subject of scientific investigation in Massachusetts, and several valuable tracts have issued from the press, urging the claims of Hygiene, and calculated to exert a salutary influence. In our own state, the College of Physicians has been earnestly engaged in prosecuting the science, and during the last year, a most interesting and elaborate report from the pen of Dr. John Bell, Chairman of the Standing Committee on Public Hygiene, has been published in the summary of its transactions. The public is indebted, however, for the first organized movement, on an extensive scale in this country, in behalf of sanitary reform, to the American Medical Association. At the first session of this learned body in 1848, a communication was laid before it, from the Medical Department of the National Institute at Washington, directing its attention to

the science of Hygiene. A committee of twelve was appointed to report on the subject, and at the meeting the following year, most valuable, and with us "new contributions to science" were presented, embodying a mass of information intimately connected with the causes of disease and death, thus opening a vast field for medical research never before occupied to any extent by the profession in this country, and laying the foundation for further and more enlarged prosecution. Among the states, Massachusetts has been the first to move in this department of medical literature; nor do we require any better evidence of the interest that the authorities of the "old Bay State" have felt in sanitary reform, than the publication of the admirable work, the title of which stands at the head of this article.

The suggestion for a sanitary survey of the state of Massachusetts originated with their medical society and the American Statistical Association. The legislature, in compliance with their petition, authorized the Governor and council "to appoint three persons to be commissioners, to prepare and report to the next General Court, a plan for a sanitary survey of the state, embracing a statement of such facts and suggestions, as they may think proper to illustrate the subject." The Commissioners appointed, were Lemuel Shattuck, Esq., of Boston, Nathaniel P. Banks, Jr., Esq., of Waltham, and Dr. Jehiel Abbott, of Westfield.

From the well known reputation of the first named gentleman, as an eminent statist, and his perfect familiarity with the laws of public health and their practical operation, although not a physician, the whole preparation of the work was committed to his hands, and we are informed, that all its plans and features, together with the accompanying bill for legislative enactment, are the result of his undivided labor. Our thanks are certainly due to Mr. Shattuck, for the very able and complete manner in which he has managed to throw together such an amount of sanitary information as is contained in this volume.

The book opens with an exposition of what is intended by a sanitary survey of the state, to wit:—"an examination or survey of the different parts of the Commonwealth,—its counties, its towns, and its localities,—to ascertain the causes which favorably or unfavorably affect the health of its inhabitants." Then

follows an interesting account of the sanitary movement, both abroad and at home, beginning with the earliest records of scripture history, when, in the garden of Eden, the Supreme Lawgiver, pronounced the first sanitary law, "in the day that thou eatest thereof, thou shalt surely die,"—and bringing it down through succeeding ages, to the present time. The research and labor, necessary for gathering the materials to be found in this department of Mr. Shattuck's work, are fresh evidences of his untiring zeal and industry, in the cause of public health.

Our space, will not allow of an analysis of this succinct history of Hygiene, which has been derived from various authentic documents, and it is, perhaps, the less necessary, as we feel assured, that those who take a lively interest in the science of health, as well as those who are seeking information of the progress and usefulness of sanitary reform, will desire to obtain for themselves a copy of the work. To be properly appreciated in all its important bearings, this richly stored volume must be read entire.

The statistical tables, compiled from the Registration reports of Massachusetts, and drawn up with great accuracy, convey much valuable information, and exhibit the results of certain etiological influences, connected with locality, climate, pursuits and habits, both moral and physical, on human health and longevity. Among other results exhibited by these statistics, is, that the vital energies of man are decreasing, "and that the average duration of life is not as great now as it was forty or fifty years ago." This startling fact, has been confirmed by recent investigations in England, and our author believes, that it must be attributed to the effects of imperfect sanitary laws, and hence, if there is an improvement in these laws, there will be a corresponding improvement in the condition of human health and longevity.

Vital statistics carry with them, some of the most important facts and phenomena connected with the prosperity and healthy condition of a city or state. Could they be gathered in a uniform manner, throughout our entire country, and controlled by legislative enactment, as has been proposed by the American Medical Association, there is no estimating the happy results, in

a sanitary point of view, that would be realized in a few years.

Under the third division of subjects embraced in this "Sanitary Commission," we have the outline of a "plan for a sanitary survey of the state," which, in the clear language of the author, "Consists of a series of measures, which may be rendered permanent if desired, presented in the form of separate recommendations. They are divided into two classes, and are to be regulated and controlled by agencies which are proposed to be established; one by the legislative authority of the state, and the municipal authorities of towns and cities, and the other, by social organization and personal action."

Under the first division, the author includes an entire revision of the Health Laws, and the establishment of a general Board of Health for the state, and subordinate or local boards; "a census; a registration of births, marriages and deaths; atmospheric observations; causes of disease and death; laying out of new towns; regulation of public buildings; manufactories and private dwellings; over crowded lodging houses and cellar dwellings; public squares and ornamental trees; mill-ponds and stagnant water; house to house visitation; observations on sickness in general, and in schools; vaccination; consumption; nuisances; evils of intemperance; inquests; insane and idiots; interments; emigrant ships and steamers; quarantine and sanitary evils of emigration, &c."

Under the second division, embracing regulations which may be adopted without the aid of legislative enactment—are, "sanitary associations; tenements for the laboring classes; public baths and wash-houses; refuse of towns; abatement of smoke nuisance; physician's and apothecaries' prescriptions; adulterated food and drugs; education of nurses; education in sanitary science; physician's records of cases; clergymen interested in public health; sanitary observations in families and personal sanitary examinations."

The report closes with many well-ordered and intelligent "reasons for approving the plan recommended," together with a sensible appeal in its favor to the denizens of the state. Take it altogether, this report is a valuable acquisition to our medical literature, and while it embraces a very magnificent and compre-

hensive scale of operations, we are not surprised that the author should express some doubt of its entire sanction by those for whose special benefit it was prepared, unless it has "a careful consideration before judgement is passed upon it, and when so considered, we have great confidence that we shall have the approval of all candid minds."

Nor can we believe it to be entirely practicable (although it may have, as doubtless it will, the approval of every intelligent and candid mind,) to cultivate at once, the immense fields of sanitary improvement, contemplated in the report. We apprehend, too, that there are many difficulties to grapple with, even in Massachusetts, where the public mind is really in advance of other states on this subject, before the recommendations of the commission, involving as they do, so many features and plans entirely new, can be complied with. But we would offer no discouragement; our principle is, "expect great things, attempt great things," and though the entire classes for survey named in the plan, should never be completed, enough will no doubt be accomplished to work important changes and results in the etiological character and prevention of disease, and in the moral and physical condition of the human race.

Accompanying this report, is the "Bill drawn by the Commission and recommended to the Legislature for enactment." The main features in this bill, consist in "the establishment of a Central General Board of Health or the whole state, and a local Board of Health for each city and town in the state; each to be composed of competent men, who are to have the general superintendence of all matters relating to the public health, within their respective jurisdictions." Among other requirements embraced within the duties of the general board, they are to "advise the state as to the location and erection of public buildings, and as to the sanitary regulations of public institutions," they are to prepare an annual report for the legislature, embracing "such remarks, as their observation, experience and reflection may suggest, as to the sanitary condition of the state, its institutions and inhabitants; and recommend the adoption of such useful sanitary measures as in their judgement may lead to improvement." They are also authorized to expend fifty dollars annually for books suitable for a sanitary library. They are to "superintend each

enumeration of the inhabitants of the state," besides many other important and necessary duties, entirely new with boards of health as at present organized.

The powers to be conferred upon the general Board of Health and on Local Boards, by the enactment of the bill proposed by the Commission, are ample in their nature and design. The bill has been drawn up with great care, after much reflection and investigation, embracing every subject matter involved in the great sanitary question. Should it be passed by the General Court of Massachusetts so as to become a law, in its present shape, we have no hesitation in promising that the health, wealth, and prosperity of the state will be eminently improved. Besides the conferring of such blessings on the state, the adoption of the recommendations for a sanitary survey and the passage of the Health act appended thereto, would give an impetus to the authorities of other states to "go and do likewise."

Thus would the noble example of "the forefathers land" be imitated, her influence be felt the wide country over, and the adoption and administration of wise sanitary laws prove a benefit and a blessing for generations to come. God speed the day when the ignorant on this vital question may be instructed, when life-knowledge, or the art of preserving life, by invigorating health and removing the causes of disease, shall take its place side by side, with the progressive sciences, thus meeting the demands of the spirit of the age.

Attached to the report is a copious appendix, illustrating, by a variety of well written articles, many of which, however, have appeared in print elsewhere, the principles and practice of sanitary reform as inculcated throughout the book.

In concluding this cursory notice of Mr. Shattuck's highly interesting work, it only remains for us to express the pleasure we have derived from its perusal. We heartily commend it to the careful reading of every physician, philanthropist, political economist, statistician and statesman, as embracing rich materials out of which may be formed correct principles of public and private Hygiene. Our sincere desire is, that it may be widely circulated, and contribute largely to the further developement of an already too much neglected science; one that cannot be overrated, and that is essential both to the health and happiness of the million.

W. J.

The Anatomy, Physiology and Pathology of the Eye. By HENRY HOWARD, M. R. C. L. S., Surgeon to the Montreal Eye and Ear Istitution.

In the midst of the abundance of medical literature, with which the press is teeming, it is truly refreshing to meet with a work, which comes honestly up to its avowed purpose, in which the author turns neither to the right nor to the left to make popular capital, and which, though evidently the result of much study and observation, is uncontaminated by the slightest tinge of parade or pedantry.

Dr. Henry Howard, as Surgeon to the Eye and Ear Institution, at Montreal, has enjoyed the advantage of a wide field for practice, an advantage of which he seems to be in every way worthy, for, as a result, he has given us an excellent book. We regret that want of time and space prevents our entering into its minutiæ, but assure our readers, that a perusal will amply repay their trouble.

The book commences with the anatomy of the eye, bones, muscles, nerves, membranes, &c., with clear and concise descriptions, correct, and withal sufficiently minute for every purpose. The physiology of the nerves, muscles, &c., follows, in which science the author appears to be fully up with the best physiologists of the day. He differs with some of them on a few minute points, and supports his opinions by facts taken from close observation, with considerable skill and judgment, but as time alone can settle many of these points, we shall offer no opinion on them.

The pathology of the eye comes next; the causes, symptoms and treatment of the different morbid conditions of the organ are described with great accuracy and clearness. The chapter on simple, severe and purulent ophthalmia, we call attention to, as being particularly worthy of careful perusal. The section on periosteal disease of the orbit, is good, and there are some interesting remarks on inflammation of the tunica vaginalis oculi.

In the course of the volume, almost all the approved operations on the eye are faithfully described, but the organ has been

sliced and cut in such variety of modes, that originality of carving is next to impossible.

An instrument invented by the author, for making the section of the cornea in the operation of extraction is described; he says that it possesses the great advantage of dividing the cornea without endangering the iris, in case of its falling forwards; it likewise obviates the necessity of making a counter-puncture, which all surgeons admit to be the most difficult part of the operation. Those interested in the subject, will do well to read and judge for themselves; our limits will not permit us to make explanatory quotations, nor, to speak candidly, do we place much reliance on such toys, for we have always thought with Liston, that a quick eye, steady hand, and a sharp knife, are more to be relied on than all the grooves, slides, springs, and guillotines that have ever been invented.

The book is well gotten up, and handsomely printed. We advise all who are interested in the subjects of which it treats to procure it; the practitioner may often refer to it with advantage, and the student cannot be better employed than in reading it attentively.

On the Use and Abuse of Alcoholic Liquors, in Health and Disease. Prize Essay. By WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S., &c. &c. Philadelphia, Lea & Blanchard. pp. 204.

The important nature of the subject discussed in this Essay, and the distinguished reputation of its author, are of themselves sufficient to secure for it a large share of attention, both in and out of the medical profession. Dr. Carpenter approaches the subject as a man of science, and not as an advocate anxious to establish preconceived views. That he has fully succeeded in his effort to support this character, we are not prepared to affirm, but if his bias as a moralist has induced him to accept testimony which rigid science would reject, a careful perusal of this essay has convinced us that it is worthy an examination by the best informed on the subjects it relates to.

In the preface to the work, the reader is requested "to keep the following issues in view, as those to which he [the author,] is desirous of leading him."

"In the *first* place. That, from a scientific examination of the *modus operandi* of Alcohol upon the Human body, when taken in a *poisonous* dose, or to such an extent as to produce Intoxication, we may fairly draw inferences with regard to the specific effects which it is likely to produce, when repeatedly taken in excess, but not immediately to a fatal amount."

"*Secondly*. That the consequences of the *excessive* use of Alcoholic liquors, as proved by the experience of the Medical Profession, and universally admitted by medical writers, being precisely such as the study of its effects in poisonous and immediately fatal doses would lead us to anticipate, we are further justified in expecting that the habitual use of smaller quantities of these liquors, if sufficiently prolonged, will ultimately be attended, in a large proportion of cases, with consequences prejudicial to the human system,—the morbid actions thus engendered being likely rather to be chronic, than acute, in their character.

"*Thirdly*. That as such morbid actions are actually found to be among the most common disorders of persons advanced in life, who have been in the habit of taking a 'moderate' allowance of alcoholic liquors, there is very strong ground for regarding them as in great degree dependant upon the asserted cause; although the long postponement of their effects may render it impossible to *demonstrate* the existence of such a connection.

"*Fourthly*. That the preceding conclusion is fully borne out by the proved results of the 'moderate' use of Alcoholic liquors, in producing a marked liability to the acute forms of similar diseases in hot climates, where their action is accelerated by other conditions; and also by the analogous facts now universally admitted, in regard to the remotely injurious effects of slight excess in diet, imperfect aeration of the blood, insufficient repose, and other like violations of the Laws of Health, when habitually practiced through a long period of time.

"*Fifthly*. That the capacity of the healthy Human system to sustain as much bodily or mental labor as it can be legitimately called upon to perform, and its power of resisting the extremes of Heat and Cold, as well as other depressing agencies, are not augmented by the use of Alcoholic liquors; but that, on the other hand, their use, under such circumstances, tends positively to the impairment of that capacity.

"*Sixthly*. That, where there is a deficiency of power, on the part of the system, to carry on its normal actions with the energy and regularity which constitute health, such power can rarely be imparted by the habitual use of Alcoholic liquors; its deficiency being generally consequent upon some habitual departure from the laws of health, for which the use of Alcoholic liquors cannot compensate; and the employment of such liquors, although with the temporary effect of palliating the disorder, having not merely a remotely injurious effect *per se*, but also tending to mask the action of other morbific causes by rendering the system more tolerant of them.

"*Seventhly*. That, consequently, it is the duty of the Medical Practitioner to discourage as much as possible the *habitual* use of Alcoholic liquors, in however 'moderate' a quantity, by all persons in ordinary

health; and to seek to remedy those slight departures from health which result from the 'wear and tear' of active life, by the means which shall most directly remove or antagonize their causes, instead of by such as simply palliate their effects.

"*Eighthly.* That, whilst the habitual use of Alcoholic liquors, even in the most 'moderate' amount, is likely (except in a few rare instances) to be rather injurious than beneficial, great benefit may be derived, in the treatment of Disease, from the *medicinal* use of Alcohol in appropriate cases; but that the same care should be employed in the discriminating selection of those cases, as would be taken by the conscientious practitioner in regard to the administration of any other powerful remedy which is poisonous in large doses."

If the manner in which Dr. Carpenter argues these "issues" does not amount to an actual demonstration of their truth, he will, we think, cause the conscientious practitioner to hesitate before, by his advice or otherwise, he encourages a violation of the principles laid down in them. Independently of the question of morality which the subject involves, Dr. Carpenter's work possesses much interest for the Phrenologist, the Pathologist, and the general reader.

Amongst the various positions considered by our author, that which refers to the "general effect of the excessive use of alcoholic liquors on the duration of life," is an important one to the medical practitioner—and especially to those connected with life assurance institutions. Dr. C. says:

"At the age of 40 years, the annual rate of mortality among the whole population of England, is about 13 per 1000: whilst among the lives insured in Life Offices, it is about 11 per 1000; and in those in Friendly Societies, is about 10 per 1000. Now the average mortality of *all ages* between 15 and 70 years, is about 20 per 1000; whereas in the Temperance Provident Institution, after an experience of eight years, and with several lives above 70 years of age, the average mortality has has been only 6 per 1000, up to the present season, in which it has undergone a slight increase from the Cholera epidemic."

The division which refers to the "*supposed use of alcohol in sustaining the vital powers*" is especially interesting, the author having drawn together a copious collection of illustrations from actual experience to prove his positions.

He considers this question under the heads; 1st, Of severe *bodily exertion*, 2d, of severe *mental* exertion; 3d, of extreme *cold*; 4th, of extreme *heat*; 5th, of *morbific agencies.*

And under all these heads he gives weighty reasons for be-

lieving that alcohol in any quantity, as a rule, exerts pernicious, rather than beneficial influences. Numerous examples under a variety of circumstances, are brought to prove, that when moderate spirit drinkers and total abstinence men are brought together under exposure or severe bodily labor, the results are uniformly in favor of the latter.

Under the head of *severe mental exertion*, after admitting that a particular kind of genius may occasionally be excited to brilliancy by the stimulus of alcohol, Dr. C. gives the following result of his own experience:

"We do not usually find that the men most distinguished for that combination of intellectual powers which is known as *talent*, are disposed to make such use of Alcoholic stimulants for the purpose of augmenting their mental powers; for that spontaneous activity of the mind itself, which it is the tendency of alcohol to excite, is not favorable to the exercise of the observing and purely reasoning faculties, or to the steady devotement of concentrated attention to any subject which it is desired to investigate profoundly. Of this we have a remarkable illustration in the habits of practiced gamblers; who, when about to engage in contests requiring the keenest observation and the most sagacious calculations, and involving an important stake, always 'keep themselves cool,' either by entire abstinence from fermented liquors, or by the use of those of the weakest kind in very small quantities. And we find that the greatest part of that intellectual labor which has most extended the domain of human knowledge, has been performed by men of remarkable sobriety of habit, many of them having been constant water-drinkers. Under this last category, it is said, may be ranked Demosthenes and Haller; Dr. Johnston, in the latter part of his life, took nothing stronger than tea, while Voltaire and Fontenelle used coffee; and Newton and Hobbes were accustomed to solace, not to excite, themselves by the fumes of tobacco. In regard to LOCKE, whose long life was devoted to constant intellectual labor, and who appears, independently of his eminence in his special objects of pursuit, to have been one of the best informed men of his time, the following very explicit and remarkable testimony is borne by one who knew him well. 'His diet was the same as other people's, except that he usually drank nothing but water; and he thought that his abstinence in this respect had preserved his life so long, although his constitution was so weak.'

"Having for several years past, been himself performing an amount of steady mental labor, which to most persons would appear excessive, the writer may be allowed to refer to his own experience, which is altogether in favor of Total Abstinence from alcoholic liquors, as a means of sustaining the power of performing it. Having been brought up as a water-drinker, he never accustomed himself to the habitual use of alcoholic liquors, scarcely ever tasting them, except when occasionally led to do so by social influences, or when he believed that a small amount of stimu-

health; and to seek to remedy those slight departures from health which result from the 'wear and tear' of active life, by the means which shall most directly remove or antagonize their causes, instead of by such as simply palliate their effects.

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us would improve the 'tone' of his system, which is liable to a peculiar relaxation in certain states of the atmosphere. On determining, about four years since, to give up the occasional use of wine, &c., as a social indulgence, he still held himself free to employ it when he might think it likely to increase the general powers of his system; and for some time he continued to have occasional recourse to alcoholic stimulants (never exceeding a single glass of wine, or half a tumbler of bitter ale,) when he felt himself suffering under the peculiar depression just referred to. He gradually, however, found reason to doubt the utility of the remedy, and has for the last two years entirely given it up. During these two years, he has gone through a larger amount of mental labor than he ever did before in the same period of time; and he does not hesitate to say that he has performed it with more ease to himself than on his former system; and that he has been more free than ever from those states of depression of mental energy which he was accustomed to regard as indicating the need of a temporary support to antagonize the depressing cause. In fact, he now finds that, when these do occur, the use of alcoholic stimulants (taken even in small amount) is decidedly injurious to him; diminishing rather than increasing his power of mental exertion at the time, and leaving him still less disposed for it after their effect has gone off. He attributes this change to his entire disuse of alcoholic liquors under all other circumstances; and he cannot but believe that the results which he now experiences, and which have led him to relinquish these stimulants altogether, are the *natural* effect of them upon the healthy system; and that the benefit which some persons consider themselves as deriving from their use, arises from their simply removing *for a time* the depression which results (at a long interval, it may be) from their *previous* employment."

In conclusion, we will again repeat our anxiety to bring this little volume under the notice of the profession.

Ether and Chloroform, their employment in Surgery, Dentistry, Midwifery, Therapeutics, &c. By J. F. B. Flagg, M. D., Surgeon Dentist, &c. Philadelphia, Lindsay & Blakiston, 1851.

The little work of Dr. Flagg presents an excellent resumé of the history of ether and chloroform, together with their physiological, psychcological and therapeutical effects. We commend it to all who may desire information on these various points, or as to the best and safest modes of administering it. It comes from one who has had great and extended experience in its use.

THE MEDICAL EXAMINER.

PHILADELPHIA, APRIL, 1851.

REGISTRATION OF BIRTHS.

Our attention has recently been drawn to the fact, that the Board of Health of this City, by a resolution, have notified the practitioners of midwifery within their jurisdiction to furnish complete returns of the number of births, during the years 1848, '49, and '50. It is deeply to be regretted, that there should have occurred any neglect in collecting these statistics for the last three years, as it shows an apparent dereliction of duty somewhere. It is the more to be lamented, as there is at all times a serious difficulty in procuring such records, and, since a register of births occurring in a large city from year to year, constitute a prominent feature in the tables of vital statistics. In consequence of this hiatus, the Board of Health have failed to complete and publish their annual statement of Births and Deaths for the years above named.

Another source of regret is, that when the missing statistics shall be collected, and especially those embracing the births for 1849 and '50, during and following the prevalence of Epidemic Cholera, they will be, at the best, so imperfect, that only very meagre results can be obtained from them, more particularly as to the effect of the epidemic, and its depressing influences upon the vital energies, in their relation to the reproductive organs.

We have ever hesitated to believe that the fault in obtaining a correct and connected statement of births, lay at the doors of the practitioners, or, that they have not viewed the science of vital statistics of sufficient import to demand their careful study and appreciation, or that they can fail to remember, that these statistics have for their object, the discovery of those laws of the economy of our nature, by which births, marriages, disease and death, under every variety of circumstances, are regulated.

But we apprehend, from the action of the Board, that the failure must have been attributed, in some degree at least, to the delinquency of those whom we would fain defend—or, why the necessity for leaving at the office of each and every one a special notice, together with a copy of

the act of assembly for 1819, providing for the registering of births, which we believe has been done?

To our knowledge, there are many in our city who have never registered their names at the Health Office as the law requires, and others who have complained bitterly that the Board of Health require them to furnish their statistics. But why complain? The Board are doing no more than carrying out the designs of a law enacted by the Legislature, at the instance of members of our own profession, and if medical men will not appreciate the subject, and interest themselves in furnishing these statistics, who will do it? We are far from believing that this apparent indifference and dissatisfaction prevail to any extent even among mere routine practitioners, much less with those who, by a studious devotion to their profession, cultivate medicine as a science of the highest order.

We cannot but hope, therefore, that the practitioners of midwifery in this city, will afford every facility within their power, for the collection of the deficient registration of births under their care, for the last three years.

The advantages resulting to the profession and to the community from a well digested and complete system of registration, require no repetition here, inasmuch as the matter has been recently laid before them, and the general public, in a memorial addressed to our State Legislature. The subject in all its important details has also been fully discussed and elucidated, in the councils of our American Medical Association, and by an unanimous vote of that body, an address has been prepared and forwarded to the several state governments, urging upon them, the adoption of measures for carrying out a general registration of births, marriages and deaths.

The present system of registration in Pennsylvania, limited as it is to this city, and full of imperfections, shows interesting results in the detailed investigations furnished at different periods by Dr. G. Emerson, in his tabular statistics; but, if this department of Hygiene was placed on a broader and firmer basis, sanctioned and enforced by legislative enactments, embracing the whole state, we have reason to believe, that, from the accumulation of statistical facts and the deductions made therefrom, that results would accrue, not only for the promotion of the health and longevity of the masses, but for the improvement of the moral and social condition of society, and the well being of the whole Commonwealth.

We have been requested to call the attention of our readers to the advertisment of a physician desirous of disposing of his practice, which will be found in this number; we have been assured, by a reliable person, that it yields two thousand dollars a year.

MEDICAL NEWS.

Charleston, 10*th March*, 1851

Editors of the Medical Examiner.

Gentlemen,—You will greatly oblige us by correcting, in your April issue, an error that crept into the notice of the time of meeting of the American Medical Association, contained in the January Number of the Charleston Medical Journal and Review. The *second* is, by mistake, put for the *first* Tuesday in May: the latter being the day prescribed by the Constitution for the meeting of that Board.

We are very respectfully your obedient servants,

D. J. Cain,
F. P. Porcher.

The Philadelphia Association for Medical Instruction, will commence its regular course of lectures for the summer, on Monday, April 7th. The general introductory will be delivered by Dr. West.

Graduates in Medicine, 1851.—Jefferson Medical College, 227. N. Y. University, 119. Maryland University, 45. Ohio Medical College, 59. University of Missouri, 83. Pennsylvania Medical College 36. Louisiana Medical College, 37.

Dr. Andrew Smith has been appointed to succeed Sir James McGrigor, as the head of the medical department of the British army.

Miss Martineau,—whose advocacy of homœopathy, mesmerism, and other kindred follies, has long been so notorious, now appears as the champion of the grossest and most undisguised materialism. In a late publication styled 'Letters on the laws of man's nature and development, by Henry George Atkinson F. G. S., and Harriet Martineau,' the lady's adoption of all the worn out trash of atheism is formally announced, as if to show the world how far the extremes of infidelity and credulity are compatible. An enthusiastic believer in homœopathy and the most

ridiculous excesses of mesmerism, she entirely rejects the notion of a Great First Cause, a Providential Guidance, and, in short, of a spiritual life, and of all human responsibility and accountability. This is another proof, as has been well observed, that "the feebleness of mind which leads to the rejection of great truths, is precisely that which tends to the reception of as great errors."

POISONING BY MISTAKE.—One of those unfortunate errors which occasionally compromise, not only the reputation of the practitioner, but the life of the patient, has recently been the chief subject of conversation in the medical circles of Paris.

The head surgeon to one of the French lunatic asylums administered ten scruples instead of ten drops, of laudanum in lavement, to a patient. The patient died thirty-six hours afterwards, with doubtful symptoms. The error of prescription could not be denied, and the surgeon was therefore brought to trial.

Five of the most celebrated physicians in Paris declared, both as medical men and legal jurists, that it was not clear to them that death had arisen from poisoning with laudanum. On the other side, two professors at the *Veterinary* School of Alfort, unhesitatingly attributed the fatal effect to the narcotic poison. The surgeon was found guilty of involuncary homicide, and condemned to fifteen days' imprisonment. The jury, perhaps came to a correct conclusion; but it seems strange that their opinion should have been formed on evidence derived from the experience of men who deal exclusively in animals.

But opinions are formed in France on very slender grounds, and jurymen, if they go astray, may cite the example of ministers. In a public discussion the other day, at the National Assembly, M. Waisse, the Home Minister, in order to excuse the Government for its neglect of the poor, affirmed that of 21,000 children born in Manchester, only 300 attain the age of five years. In other words, the mortality of children in Manchester, up to the age of five years, is 98½ per cent. Surely this must be a grave and gross error. Even if the fact were true, it affords little consolation for the analogous one, "that in a certain part of Lille, only four children out of one hundred attain the age of five years."

The concours for the Chair of Surgery at the Faculty of Medicine still continues, and many of the exercises have been conducted in a brilliant manner. M. Robert, of the Hôtel-Dieu, and Professor Buisson, of Montpelier, appear to divide the chances between them. Either would make

an excellent professor; Robert as a practical surgeon, Buisson as an accomplished teacher.—*Paris Correspondent of the London Med. Times* 22d. *Feb.* 1851.

Deaths of Distinguished Physicians.—The year 1850 has been fatal beyond all measure to medical science in France. Nearly all that remained to us illustrious in every department of the science has passed away. In chemistry Gay Lussac; in surgery, Marjorlin and Blandin; in comparative anatomy, de Blainville; in medicine, Fouquier, Royer-Collard, Capuron, Prus, and a host of others. To this long catalogue is to be added the name of M. Leuret, physician to the hospital of Bicêtre. M. Leuret was one of those persons, now so rare, who pursue their career without noise or ostentation; therefore, notwithstanding the extent and variety of his knowledge, the remarkable clearness of his judgment, and his personal value, it was long before M. Leuret enjoyed that degree of public estimation to which his peculiar talents so justly entitled him. He wanted ambition, and was consequently inactive. Even his great work on the Comparative Anatomy of the Nervous System still remains unfinished.

The peculiar doctrines of M. Leuret on the moral treatment of insanity are well known. They met with obstinate opposition in France, and were the principal cause of the little public success which their professor obtained. On the other hand, M. Leuret was one of the most effective opponents of phrenology, and his profound knowledge of the comparative anatomy of the brain enabled him to overthrow many a brilliant theory, which seemed inexpugnable when applied to man alone.

Naegele, the celebrated Professor of Midwifery of Hiedelberg, and Langenbech, the no less distinguished Professor of Anatomy and Surgery at Gottingen are dead. They died on the same day; Naegele at the age of 72, Langenbech at 75. Naegele was born at Dusseldorff and studied at Strasbourg and Paris. Langenbech, at his own expense, erected and endowed at Gottingen a Surgical Hospital and Anatomical Theatre.

Delegates from the Philadelphia County Medical Society.

American Medical Association,—Drs. B. H. Coates, G. Emerson, P. B. Goddard, Ed. Hallowell, B. S. Janney, J. F. Lamb, D. P. Lajus, Samuel Lewis, R. La Roche, J. H. B. McClellan, Lewis Rodman, Francis West, T. H. Yardley.

State Medical Society,—Drs. Wm. Ashmead, Henry Bond, T. F. Betton, D. F. Condie, G. Emerson, G. Fox, J. D. Griscom, I. Hays, N.

L. Hatfield, Prof. S. Jackson, Saml. Jackson (late of Northumberland), W. Jewell, J. F. Lamb, C. D. Meigs, W. Maybury, J. H. B. McClellan, G. W. Norris, Wm. B. Page, Isaac Parrish, Lewis Rodman, Isaac Remington, M. B. Smith, G. B. Wood, F. West, J. Warrington, T. H. Yardley.

RECORD OF MEDICAL SCIENCE.

OBSTETRICS.

On the employment of Tartar Emetic to relieve Rigidity of the Cervix and os uteri, in cases of Parturition.—Dr. A. Hall, of Montreal, strongly recommends the employment of tartar emetic, to relieve rigidity of the cervix and os uteri, in parturition, and in *much larger doses* than has been advocated by writers on midwifery. Dr. Hall prescribes it in grain doses, every half hour. He has not found it necessary to exhibit the medicine in such doses more than thrice, relaxation most commonly following the exhibition of the first grain. Several cases are reported, strikingly illustrative of the value of the practice. Dr. Hall, however; admits that "cases may be met with, in which its exhibition would be decidedly improper. These exceptions to the rule will be found to occur in women of delicate habit and leucophlegmatic temperament. They are cases in which the action of the remedy, if exhibited, may proceed too far; which, unable to resist the prostrating effects of the medicine, might be followed by a collapse, to which the vital powers of the system might succumb. This is a contingency which should be sedulously kept in view; and prudence demands, therefore, some care in the selection of proper cases for its exhibition."—*Abridged from British American Medical and Physical Journal, December* 1850.

Case of Sudden Death Seven Hours after Delivery—Air found in the Heart. By Mr. Berry.—E. G., aged 22, pregnant with her first child, was taken in labor on the evening of June 16, 1830. The pains at first were slight, and continued so during the night. In the morning of the 17th she became worse, and at 2 o'clock, P. M., the pains were so strong as to induce her to send for her medical attendant, Mr. Dyer, who remained with her till seven o'clock in the evening, when she was delivered of a male child. In twenty minutes after the birth of the child, the placenta was naturally expelled, with but little loss of blood. At half-past eight o'clock she was very comfortable, and at ten o'clock was carefully put to bed. At eleven o'clock she took some gruel, and expressed herself "as feeling as comfortable as she could expect." Her husband then lay by her side. About one o'clock in the morning of

the 18th, he became alarmed by her difficult breathing, and feeling of faintness. He immediately sent for Mr. Dyer, but before he arrived, at two o'clock, she was dead. She lived seven hours after her delivery. The cause of death could not be accounted for, as there was no hemorrhage, and apparently nothing in the condition of the patient to prognosticate such a termination. A post-mortem examination was allowed, and was made early in the morning of the 20th. The body was well formed and nourished. A thick layer of fat existed in the abdominal coverings. Upon opening the abdominal cavity the uterus was seen midway between the pelvis and umbilicus; the peritoneum covering it and the intestines was healthy, but pale. The stomach contained a small quantity of fluid. Liver healthy. The kidneys presented a granulated appearance; and the urine which remained in the bladder was ascertained to be, by the application of heat, slightly albuminous. Upon cutting into the uterus, it was found empty, and the vessels where the placenta had been attached patulous. The vagina contained, at its superior part, a moderately-sized clot of blood. Within the chest both lungs were congested, and contained scattered tubercles in their lobes. The heart was the size of a male heart, and apparently distended. Upon making an incision into it, a gush of air escaped, and the organ became flaccid; no blood was found in its cavities. About one ounce of serum was observed in the pericardium. The brain was healthy in every respect. No signs of decomposition existed in any part of the body.

Olivier, in the article "Air," in the "Dictionnaire de Médecine," p. 73, when referring to Legallois' experiments on the inferior animals, in which he had found sudden death occur from air penetrating into the vena cava inferior and heart, by the uterine veins, in female pregnant animals, asks the following question:—"Is it to a cause of this kind that we ought to attribute the sudden and unexpected death in females lately delivered, and where the autopsy disclosed nothing which could account for such a catastrophe." Does the case above detailed answer the interrogation of Olivier? The labor was natural, and concluded within the ordinary period; the placenta was expelled with but little loss of blood; every thing went on well for some hours, when suddenly the respiration became obstructed, and death followed in a very short period. Upon examination, nothing could account for these symptoms but the congested state of the lungs, and the air found in the heart. The mode in which the air effected its entrance appears to me to be as follows:—The uterus, after the removal of the placenta, contained a clot of blood, with the contraction of the uterus the clot was forced into the vagina, when the uterus relaxed, air was drawn into its cavity, the clot in the vagina prevented the air from passing out of the uterus easily, and the mouth of the uterine veins being patulous, it was forced into them, and then passed into the general venous circulation. The entrance of the air was, in all probability, gradual, and, therefore, occupied some time before it reached the heart in sufficient quantity to give rise to those symptoms of obstructed respiration, which soon terminated in death. Dr. Simpson, in a communication to the late Dr. Reid on this subject, has expressed himself as follows:—"As to the

mechanism of the introduction of air in such cases, supposing that to be the cause, I think we can understand it when we remember that the interior of the uterus after delivery, especially opposite the late seat of the placenta, is studded with venous orifices, and that if the air does once become introduced into the uterine cavity, from relaxatiou of the walls of the organ, it will be liable to be forced into these orifices, and hence into the general venous circulation, provided the uterus, in again contracting, is unable to expel its contents through the os uteri."—*Prov. Med. and Surg. Journal.*

Tumour of the Rectum, containing Portions of a Fœtus, extracted from a Child six years old. By M. Bouchacourt, Head Surgeon to the Hospital of La Charité, Lyons.—Catharine Sery, a girl 5½ years of age, after having suffered from several disorders connected with the digestive organs, passed a large quantity of purulent matter from the anus. The discharge continued for seven months: the child fell away, and the excretion of fæces became more and more difficult.

About a fortnight after the first discharge of purulent matter, that is near the end of August, 1849, a long lock of auburn-colored hair was passed from the anus; it bore great resemblance to that of the little patient. About the end of March, 1850, the purulent discharge ceased, and nothing unusual was noticed until the 17th April, when some blood was passed from the anus; the child now suffered from constant tenesmus. As the efforts increased a tumor presented itself at the orifice of the anus, disappearing again when the strain ceased. The patient was now admitted into hospital, under the care of M. Bouchacourt.

On examining the rectum it was found that the tumor extended some way into the gut, adhering to the posterior wall only at its upper part. The tumor was soft at some points, hard at others, smooth and partly covered with hair. Its nature thus became manifest at once; it was resolved that we should extirpate it, and nature assisted us, for after a long walk the tumor protruded almost entirely from the rectum. A careful examination now showed that the root or pedicle of the tumor did not contain any vessels, and that no portion of the intestinal canal was connected with it. Extirpation was therefore easily effected by means of a double ligature and the scissors. A few drops of blood only escaped, and the child was well in a few days.

The tumor was an irregularly oval mass, weighing 2⅓ oz., covered with fine white skin, exactly like that of a new born child. On one end were some hairs, and on the other a fine down. On making a very careful examination, a transverse fissure was discovered close to one of the ends, and on a tubercle attached to the lower lip of the fissure were two teeth, a canine and a molar one. On a similar tubercle of the upper lip was an incisor tooth, placed transversely. On dividing the body of the tumor, the first object which presented itself was a round bone, imbedded in fibro-fatty matter. This bone supported a number of teeth and some capsules. Beneath this bone was another small one of irregular shape, the nature of which it was impossible to determine. It might be a rudimental rib or

vertebra. Finally the lower portion of the trunk was represented by a cartilaginous mass of the size and shape of a small nut.—*London Med. Times, Ist March,* 1851, *from Bulletin de l'Institut.*

MATERIA MEDICA AND THERAPEUTICS.

Antiseptic properties of Chloroform. By M Augend, of Constantinople.—M. Augend has communicated to the French Academy of Sciences the following experiments, which establish a marked line of demarcation between ether and chloroform, and point out in the latter a remarkable property which has hitherto escaped the attention of chemists.

If three wide-mouthed, ground stoppered bottles are taken, and into one we put a few drops of ether, into another a few drops of chloroform, and leave the third in *statu quo*; then place in each a piece of beef, secure the stoppers, and leave them during summer weather, the following phenomena are observed:—The flesh, naturally of a reddish brown color, passes et once to a vermillion-red, under the influence of the vapor of chloroform mixed with air, whilst it undergoes no change in the ether. Such are the immediate effects, but at the end of a week the results are still more distinct. The flesh preserved in the air has changed its color slightly, that which is preserved in the ether has become brown, whilst that in the chloroform has acquired the appearance of boiled meat. On opening the bottles the meat in the air has become offensively putrid, and the same thing occurs in the presence of the ether, whilst there is no change in the flesh kept in the Chloroform, apart from the sweet taste and peculiar odor of the lattter.

These antiseptic properties of chloroform have furnished interesting results to M. Augend. He has found that 1-2000th part of it suffices to preserve a mass of muscular flesh. Not less remarkable is the facility with which the vapor permeates the densest tissues. Chloroform has this advantage over creasote, that it does not coagulate the albumen; nor is it on its part decomposed by muscular fibre.

The most apparent action of the chloroform, not only on muscular substance, but also on the fleshy pericarps of fruits and seeds, is an immediate contraction of the fibre or the parenchyma, which causes the watery juices to flow out on the bottom of the vessel in which the experiment is made.

The author reports a number of trials made on different animal substances, and modified in various ways, from which it results that the antiseptic properties of chloroform may be of use to naturalists and anatomists, who wish to preserve specimens for some time. He even thinks that it might be applied to the preservation of bodies in case of homicide, where these might require to be kept for sometime for medico-legal purposes.—*Gazette Medicale*, 15th November, 1850.

SURGERY.

On the subcutaneous application of the Ligature for deep-seated Nævi. By John Adams, Esq., F.R.C.S.E., Surgeon to the London Hospital, and Lecturer on Anatomy in the School.—In the treatment of these cases it is of course a primary object to cure the disease without the destruction of the skin which covers it, and which, in many cases, is scarcely involved in the disease. Hence the employment of the seton, the cutting up of the tumor with the couching needle, the injection of irritating lotions, and the introduction of probes armed with nitrate of silver, &c. &c. Nay, even the actual cautery may be used with a view to induce such an amount of inflammation in the cells and blood-vessels of the tumor as shall lead to its complete obliteration.

It has suggested itself to me that a ligature might be so employed as to embrace the whole of the disease without compromising in any manner the vitality of the superjacent skin; and the following is the plan I put into operation in a recent case:—

The disease occurred in a child six months old, and was situated on the right cheek, close to the nose and just beneath the eyelid. The tumor was somewhat oval, its long axis vertical, and, although the disease was principally in the subcutaneous vessels, yet the veins of both upper and lower palpebra were somewhat varicose.

I introduced a long needle armed with a ligature, only slightly curved on the flat towards the point, and carried through the side of the tumor in its long axis, from below upwards; having drawn out the needle on the opposite side, I re-introduced it on the other side of the tumor, at a point on a level with its point of exit, and brought it out opposite the point of its first insertion. If I had now tied the ligature I should have encircled the whole of the tumor, but there would have been great puckering of the skin at the upper and lower edge, whilst the skin on either side would have been free. To obviate this inconvenience, therefore, I cut through the skin above and below, from the point of insertion to the point of exit of the needle, and having tied the ligature firmly, I endeavored to strangulate the tumor.

In this case the success was not complete, and I believe the want of success arose from my having, on the fourth day, divided the knot with a pair of scissors, and removed the ligature before the disease was effectually destroyed.

This method of procedure is founded on the assumption, that subcutaneous nævi are supplied by vessels springing from below rather than by those of the skin. This, however, is not always the case, and I am inclined to think that in the instance just related there were many vessels passing into the tumor from the skin.

I am not aware that this mode of applying the ligature has been put into practice before; it is exceedingly simple, and, as it in nowise compromises the vitality of the skin, I think it deserving of a fair trial.

In another case I certainly should allow the ligature to remain, until, by gentle and gradual traction of its ends, which should be left of about two inches in length, it could be made to cut its way through the base of

the tumor, thus completely detaching it from its subjacent connexion.—*London Med. Times.*

Calculus Removed by Dilatation of the Urethra. By R. DAVEY.—Georgiana Bingham, a little girl, aged about three years, was brought to my house, apparently in the last stage of atrophy; she had been under medical treatment for some time without any benefit; she suffered from a prolapsed state of the rectum, constant desire to make water, could scarcely get any sleep, and the right eye completely turned from straining. Suspecting stone, I sounded, and found one of considerable size; proceeded, with the assistance of my son, to remove it by dilatation; commenced with a warm hip bath, then with several bougies, and, having dilated the urethra sufficiently to introduce one of Fergusson's three-bladed dilators, grasped the stone with the forceps; but, unfortunately, it broke, therefore only a portion was brought away; the child was now very much exhausted from crying, so had her placed in bed, after I had injected the bladder with warm water. She went on well for six days, when stoppage again came on; proceeded as before, and this time brought away a much larger piece. From this period she went on well; and at the end of a fortnight gave her some preparation of iron. The child is now perfectly restored, and is getting fat, the bladder having regained its functions, and she full command of the urine. Weight of the stone removed 6 drs. 20 grs.—*London Medical Times.*

ANATOMY AND PHYSIOLOGY.

Spontaneous Generation.—M. Gros, of Heidelberg, has communicated to the Institute the substance of some curious researches relative to an animalcule which, according to the learned author, is developed spontaneously in the frog's bladder. The animalcule now alluded to has been denominated by M. Gros "*torquatina.*" It is produced by the mucous membrane of the bladder, which detaches a granule; this granule becomes the crown of the animalcule, while the neighboring vesicles become the body. To follow the development of the animalcule, it is necessary to take a small bit of the mucous membrane without injuring it, and then place it very cautiously under the microscope. Any pressure or solvent, even serum, will kill the animalcules. If these precautions be observed, the development of the animalcule may be followed. A mere unorganized granule is detached from the mucous membrane; this coalesces with other granules to form a certain portion of the animalcule; the latter then folds up its crown, fixes a number of vibratile cilia in various parts of its body, becomes oval, and constitutes an *opalina*. This latter forms a nidus in the mucosities of the intestine, deposits an egg, and the latter gives rise to a true worm of the ascaris kind.

If the above observations be correct, we must admit for certain entozoa a primitive species of generation different from any hitherto known—*Med. Times, Nov.* 16, 1850.

M. Bernard on the Absorption of Aliments.—The following is the substance of a memoir recently presented to the Academy of Sciences, by M. Bernard, on the absorption of alimentary substances by the chyle vessels.

All alimentary substances are reduced in the intestinal canal to three principal matters, viz., saccharine, albuminous, and fatty emulsion.

Absorption of Sugar by the Chyle Vessels.—On administering large quantities of cane sugar to the mammalia, M. Bernard has always found that substance in the blood of the vena portæ, whereas, the thoracic duct contains no trace of that substance. The author hence concludes, that sugar is exclusively absorbed from the digestive canal by the system of the vena portæ, and that saccharine substances traverse the liver before they reach the lungs.

In thus traversing the liver, saccharine substances undergo an important transformation. If a solution of two or three scruples of cane sugar be injected into the superficial veins of a dog, this substance, instead of being assimilated, is excreted with the urine in a few minutes. But, if the sugar be thrown into one of the branches of the vena portæ, and thus forced to traverse the liver, it is no longer eliminated, but assimilated and combined with the blood, just as occurs after normal digestion We may conclude from this that absorption by the system of the vena portæ is a necessary condition for the assimilation of sugar.

Absorption of Albumen.—When a weak solution of albumen from the egg is thrown into the jugular vein of a dog or rabbit, the urine becomes albuminous some time afterwards. M. Bernard considers that this shows a difference between the albumen of the egg and the albumen of the blood; and that the former requires to be modified before it can become incorporated with the living body. The modification takes place in the liver; for, when the albumen from an egg is injected into the vena portæ, it remains in the blood and is not eliminated by the kidneys. These experiments tend to prove that albuminous matters are absorbed exclusively by the vena portæ; they likewise show that cane sugar is subject to the same law, and that both can only be assimilated by undergoing the influence of the liver.

Absorption of Fat.—In a former memoir, M. Bernard demonstrated that fatty matters require to be converted into an emulsion by the pancreatic juice before they can be absorbed in the stomach. We might hence, *à priori*, conclude, that fatty matters do not require to pass through the liver, and this is the case. Still, however, it is certain, that fatty matters are sometimes obsorbed by the branches of the vena portæ as well as by the chyle vessels.—*Ibid from Bulletin de l' Acad.*